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JUNE, 1940



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THE AMERICAN School Board Journal

A Periodical of School Administration

In This Issue: **The Advantages of an Activity Program, James A. Fitzgerald**

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JUNE,
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ENTERING THE VACATION SEASON

With the month of June, with its graduation festivities, follows the vacation season. It is then that there is a change in the school activities in that pupils and teachers disappear from the scene, the schoolhouse doors are locked, and the premises are deserted.

The school administrators, nevertheless, are on the job and active. The summer months are well adapted to rehabilitate, repair, and renovate the school plant. The alert school administrator who has a proper regard for the housekeeping side of a school system knows that the season of the year has arrived when certain things must be done.

He looks over the school plant, from basement to garret, and bears in mind as a first consideration the matter of safety. For the greater period of the year the buildings house precious lives whose protection is in the keeping of the school authorities.

Aside from the element of safety, both in buildings and premises, there are many phases which make for cleanliness, neatness, comfort, and convenience.

There, too, comes in the question of economy — that economy which is involved in the matter of timely repairs; namely, where the expense of making repairs would be greater next year than this year.

Be it said finally, that while pupils and teachers are off for rest and recreation, the board of education and the superintendent must be on the job. The house must be placed in order for the reception in the fall of the school constituency. The vacation months are months of planning, devising, and service so far as the school authorities are concerned.

THE EDITOR

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The contents of this issue are listed in the "Education Index."

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THE AMERICAN School Board Journal

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"WE CANNOT DO OUR JOB WITHOUT YOU!"

School-Board Minutes of ONE HUNDRED Years Ago

Lewis C. Turner¹

Well-worn records show that School Boards of 1839 had the same troubles as those of today.

In 1918, Mr. G. W. Allen, a resident of Mantua Village brought me a faded notebook which he said might be of interest to the schoolmen in the vicinity. I laid it aside intending to glance through it later but never came across it until last year while going through some boxes of school books. The record begins with an entry for April, 1839, and is as follows: "School District No. 8, Mantua Township, Portage County, Ohio, was set off April 1, 1839 according to a petition presented to the Trustees of Mantua Township by the *householders* of the district."

We note at once that suitcase citizens were not allowed to vote for school directors. The first ones elected were Lyman Stebbins, Chancey Wheeler, and Caleb Egleston. Caleb was subsequently chosen clerk and treasurer. The record has the following to say about the first session, "A school of four months was taught by Miss Lucia Wheeler closing in September at \$1.50 a week."

Evidently the descendants of the old New England settlers believed in rotation of office, for when they met the following September, they proceeded to elect Darwin Atwater and Erastas Crafts to take the place of Egleston and Stebbins.

On February 21, 1840, the year that General William H. Harrison was elected president by the Whigs, we find the following entry in the little brown book: "Our school taught by Miss Clarisa Carlton 16 weeks closed this day. For 12 of the weeks she is to receive \$1.50 per week, for the other 4 weeks she is to receive \$1.75 per week. The town clerk being absent the directors were compelled to delay settlement with the teacher for a few days." And now, one hundred years later, school boards are having the same trouble.

It appears that the school directors did not overemphasize spelling and English for we find these entries under March 7, 1840: "The directors *hiving ascertained* the portion of *Publick* money for this district is \$24.50 met and agreed to give Miss Clarisa Carlton an order for the whole amount. The above order was this day *wrote* by the clerk and forwarded to the directors."

Perhaps the panic of 1837 had reached the Western Reserve by this time for the next entry shows a reduction in teachers' wages to \$1 per week. "March 9, 1840, contracted with Miss Abigail Leonard to teach school for 20 weeks at \$1.00 per week. D. Atwater, clerk."

The curriculum was none too extensive

and truancy an old problem as shown by the entry of September 18, 1840:

"The whole number of students enroled for the winter school was 38, for the summer 28. The branches taught were reading, spelling, writing, arithmetic, and geography. We regret in looking over the teacher's book to see that so many *schollars* have been *so unsteady* in attendance. It is also of importance that the building be repaired and that fuel be provided *short* enough for the stove and put in the wood room."

The clerk of 1841 must have been feeling a spell of oratory coming on because on September 17 he wrote:

"*Fellow citizens*—The earth in its annual revolution has brought us to the 3rd Friday of September the day appointed for our annual district meeting, to take into consideration what has been done during the year that has past and what can be done during the year to come in the school in our neighborhood to forward the great enterprise of educating the human race. How important the business on which we have met to devise means to forward the education of our children who are soon to succeed us in active life and be our representatives for ages to come. Let us as far as possible inspire the children with an ardor, a zeal for improvement. Then let us for the purpose of exciting attention to the studies often interrogate them in the branches they study. Thus by word and deed let us manifest that we regard the education of our children as a matter of great importance. (Signed) *Darwin Atwater, Clerk.*"

September 20, 1841: "On motion it was resolved that half a cord of stove wood be provided for each scholar that attends the Winter School. It was also moved that we circulate a subscription for raising funds with the publick money to support a school nine months free of charge during the coming year."—*Darwin Atwater.*

"*Mantua, October 25, 1842.* At a meeting of the householders of the district held this eve agreeably to publick notice at the old school house, Chancey Wheeler was called to the chair. It was unanimously resolved that a tax of two hundred and forty dollars to be levied for the purpose of building and furnishing a school house for the district. Voted that we adjourn without delay. Chauncey Wheeler."

"May 3, 1843. The following contract has been made with Chauncey Wheeler to lay a stone foundation for the school house the stone being delivered on the ground for him. Also to hew the timber when delivered on the ground. Said Wheeler is to *find* his tools board himself and be paid 75 cents per day. Seth Sanford to frame the school house in good order when the timber is

counter hewed. (The timber and lumber being delivered on the ground and superintend the raising for \$12.) I now resign my office as District Clerk, treasurer and director, expecting to be absent the most of the time for the summer. Miles Wheeler."

The record of October, 1843, contains the first reference to male teachers. "*October 1843*—Contracted with Darwin Atwater to teach school at fourteen dollars per month, continued forty-three days." Evidently the previous habit of stating the wage per week hurt the pride of the men. From here on wages are quoted per month. The next item indicates that the men of the district were hearing a call:

"April 6, 1844—C. M. Egleston having gone to the Western Country and not being expected to return for some time could not perform the duties of school director, this was notified to the township clerk and the following was received from him: Mr. Ulysses Spink, Sir: You are hereby appointed school director in District # 8 and required to perform the duties of said office until the next election. A. J. Squire, Clerk."

The following entry seems to indicate that the main problem of the directors in 1845 was wood trouble:

"September 19th, 1845—Voted that one fourth of a cord of wood be charged for each scholar attending during the winter school. Voted that the wood be delivered by the first week in November and corded in the wood room. If any one charged with wood fail to deliver the wood by that time he be charged at the rate of \$1.00 a cord to be added to the school bill. Voted that we prefer a male teacher for the coming winter."

Another item emphasizes the wage scale: "September 1845—Two schools have been taught in this district, 7 months in all, besides 1 now in progress. Four months were taught by a male teacher at \$12.00 per month, and 3 by a female at \$1.00 per week. The average number of scholars attending the winter school was 32½, and the average attending the summer school 20."

"October 1845—The school directors agreed with David Bemiss to teach our Winter school for \$16 a month and board himself." This was the year that congress voted to annex Texas.

Soon after the clerk took a few minutes off to take the census. "October 16, 1846—I took the enumeration of the district and found the No. of males between 4 & 21 years to be 28. Females 21. Total 49. D. Atwater, Clerk."

The Mexican War declared in May, 1846, must have lowered wages: "May 3, 1847—School commenced. Miss Martha Welmot teacher at 75¢ a week."

These pioneers supported education. "July 8, 1848—The householder of district 8 met, at the school house to ballot for or against levying an additional school tax for the year. The ballot showed the vote to be unanimous in favor of the tax."

The entry of October 21, 1851 contains the first reference to the race problem. "*Oc-*

(Concluded on page 91)

¹Executive Assistant, Akron Board of Education, Akron, Ohio.

Educational Effects of North Carolina's State Plan for School Management

Roben J. Maaske, Ph.D.¹

While a number of states in recent years have been experimenting with various forms of larger units of school administration, North Carolina is perhaps the only state which has faced the problems involved on a state-wide basis in a forthright attempt to equalize educational opportunities through a centralized state plan of school finance and administration.

The general transition from a system of schools largely financed and administered locally to a plan whereby the state as a unit assumed more administrative control along with the financial responsibility for a minimum eight-month school term has been accomplished in North Carolina within this decade. The state under this plan shares the administrative responsibility with 171 local city and county school administrative units.

Operation of North Carolina's Plan

This article will focus attention chiefly on the changes which have taken place recently in the character and quality of education in North Carolina under its state plan for school management. However, certain basic information concerning the operation of the plan in recent years is necessary to an adequate understanding and interpretation of these educational changes.

There are at present 100 county administrative units and 71 city administrative units. Within each county administrative unit there are subunits or districts. Formerly there were approximately 3,000 separate districts, independently managed; whereas now there are approximately 825, made up of city districts and the subunits or districts within the 100 county administrative units.

Each county administrative unit has a board of education, and each city administrative unit a board of trustees. County boards of education appoint district committees for each of the subunits or districts in each county. County and city boards of education are elected each biennium, and they in turn appoint the county and city superintendents of schools, respectively.

Due to effective emphasis on school consolidations made possible under a state plan, the number of one-teacher schools has been reduced markedly. In spite of the fact that North Carolina is a predominantly rural state, the percentage of one-teacher schools in the total number of schools is only 28. This compares favorably with a like percentage of 74 in Kentucky, 64 in Pennsylvania, 55 in Ohio, 54 in Oklahoma, 44 in Tennessee, and 33 in California.²

Widespread consolidation has necessitated extensive bus transportation which is supervised closely by the state. North Carolina now transports more pupils to school than any other state. In 1929-30 some 108,000 pupils were transported, as compared with 318,000 for 160 days in 1938-39. The current cost per pupil transported has steadily decreased and for 1938-39 was \$6.95.

Prior to the assumption of financial responsibility by the state for the operating costs of an eight-month school term, the state (1932-33) contributed about \$3,500,000 and local sources approximately \$21,500,000. For the fiscal year 1937-38 these proportions were practically reversed, the state paying approximately \$24,342,000 for current expense and local sources about \$4,756,000.

The large decrease in *ad valorem* taxation for school purposes in local areas released this source of revenue for the purpose of capital outlay expenditures, maintenance and repair of plant, and the consistent reduction of indebtedness. An evidence of this has been in the marked increase in the number of new buildings erected in the past few years, much more so than would have been possible under the stimulation of PWA opportunities alone. The total school plant valuation for the state is now approximately \$113,000,000.

Any city or county administrative unit and certain districts within county units have the authority to vote a local supplemental tax for the purpose of extending the school term beyond eight months, increasing salaries above the state schedule, and providing additional educational services, materials, and equipment. An increasing number of the units are voting such supplemental taxes. In 1935-36 there were 12 units, but this number had increased to 40 in 1938-39.

The financial economies possible under a state plan of this nature are considerable. An example or two will suffice to indicate this fact: (1) School buses which would sell in other states for approximately \$1,400 are purchased in several hundred lots by contract for \$975. (2) Central purchasing of fuel for all schools in the state has reduced the annual operation of plant costs nearly \$1,000,000 in the past ten years.

From the foregoing brief exposition, it is evident that in addition to making a forthright effort to equalize educational advantages for all areas, the State of North Carolina believes in measures designed to secure the efficient expenditure of the funds it provides and an opportunity for local school areas to supplement the present minimum program financed through the state by an additional local tax to provide greater educational opportunities.

Effects of Plan on Educational Progress

In this section of this article it is planned to analyze the results of the operation of the state plan in terms of changes in the general quality and character of education. It will not be possible, however, to dwell in detail on the various phases selected for analysis.

Such comparisons as are made for interpretive purposes will be made principally with conditions or data in North Carolina in an earlier year or prior to the inauguration of the present state plan. Comparisons with other states will be made only occasionally because such comparisons are often misleading due to variable factors. In North Carolina these factors include such ones as the following: (1) Essentially there is a double school system, for white and for Negro (in addition there are a few Indian schools). (2) There exists a seven-grade elementary and four-year high-school system in the majority of school units. (3) The state is a predominantly rural state. (4) A relatively large youth population exists. (5) There is a lack of financial resources to support schools adequately in comparison with other states.

Length of School Term. At the time the state assumed the cost of operating a minimum eight-month term in all districts, Negro and white, school terms varied in length in different districts from six months to nine months. The average annual term for white schools the year before (1932-33) the eight-month minimum term went into effect was 158.3 days, and for Negro 141.7 days, with an average for both of 153.2 days. Each year the average term has been lengthened, and in 1936-37 it was 163.3 days for whites, 162.8 for Negroes, and 163.1 as the average for both.

Pupil Attendance. Following the general trend throughout the country, the elementary schools in North Carolina have reached a period of almost static attendance. In 1931-32 the total attendance was 611,204, and in 1937-38 it was 608,569. There has been a marked increase in the attendance in high school, particularly in rural areas where many new schools have been erected in recent years.

From 1931-32 to 1937-38 the white high-school attendance increased from 100,802 to 133,250—a gain of 33 1/3 per cent. In these six years the attendance in Negro high schools increased from 16,259 to 29,280, or approximately 90 per cent.

Student Progress. The increasing number of pupils in the higher grades of the elementary and high school in comparison with earlier years indicates clearly the greater holding power of the schools. In a comparative study of promotions in nine counties from 1926-27 to 1936-37, an in-

¹President, Eastern Oregon College of Education, La Grande, Oreg., formerly Professor of School Administration, University of North Carolina, Chapel Hill, N. C.

²*Local School Unit Organization in 10 States*, U. S. Dept. of Interior, Office of Education, Bulletin, 1938, No. 10.

crease from 58 per cent to 83 per cent was noted.³ Several factors of casual nature exert an influence here, but undoubtedly better teaching and better school facilities in general can justly be credited with a considerable influence.

Teacher Preparation. The present requirement for both elementary- and high-school teachers is a college degree with four years training beyond high school. In 1927-28 only 32.6 per cent of the white teachers had four years or more of college preparation, whereas this percentage in 1932-33 was 52.5 and in 1937-38 was 76.6 per cent. Only 1.1 per cent of all white elementary and high-school teachers in 1937-38 had less than the equivalency of two years of college work. Even greater proportionate forward strides in preparation have been made by Negro teachers, with those having four years or more of college ranging in 1927-28 to 1937-38 from 6.9 per cent of the total to 43.3 per cent of the total.

The evidence indicates that no more than one or two other states at most have made as rapid comparative progress in increasing the requirements for eligibility to teach. Along with increasing preparation requirements has come a more centralized and professional plan of teacher selection in that this responsibility is now placed legally within the authority of principals and superintendents.

Salaries for Teachers. The salary schedule is state wide and elementary- and high-school teachers receive the same salary according to their certificate ratings in terms of educational training and experience, whether teaching in urban or remote rural areas. The state salary schedule may be supplemented for local teachers by local funds. Before the state assumed financial responsibility for the minimum educational program, the highest rating on the state schedule was \$133, but this rating now pays only \$126. The beginning teacher rating on the state schedule is \$96 per month.

Quite a large proportion of teachers have reached the maximum rating which calls for a college degree and eight years of experience. Agitation is strong, and justly so, for increases in salaries, particularly the addition of further brackets beyond the present eight-year maximum. Latest comparative data (1935-36) available for 14 southern states, by race, indicate that North Carolina ranks tenth for white and seventh for Negro in the average annual salary paid to teachers, principals, and supervisors.

Teacher Welfare. There is at present neither a tenure nor a retirement law for teachers in effect in the state. A strong committee of the North Carolina Education Association has been studying a retirement program for some years and the last General Assembly considered a proposed bill but, owing to lack of funds, the bill did not command favorable consideration. The teacher load in terms of the number of

pupils is based on a pupil-teacher ratio somewhat comparable to similar ratios set forth in the laws of a number of other states.

Curriculum Progress. Such changes as have taken place in this field have not been influenced to any degree by the reorganization, except possibly through the administration of the free textbook and textbook rental program. If other textbooks are used, they must be purchased from local supplemental funds, which places some restriction on curriculum flexibility.

There is, however, evidence of a definite interest in curriculum improvement and expansion. Agitation in the state is strong for the addition of another year to the present predominant seven-year elementary- and four-year secondary-school program. Opinion has not crystallized as to whether it should be another year in the strictly elementary field or in the secondary-school area.

Adult Education—Special Education. The state has made a beginning in financing an adult-education program in cooperation with county and city school administrative units. During the biennium 1937-39, the state appropriated the sum of \$50,000 for the support of a state-wide program of adult education through a matching of funds for that purpose on a 50-50 basis with county and city school administrative units. During the 1939-41 biennium, the appropriation has been increased to \$60,000, to be matched on the same basis as before with local county and city school units. The administration of the adult-education program is being very capably handled.

There has also been some experimental work and emphasis in the field of special education carried out under the supervision of the state department of public instruction.

Effect on Local Communities and Public Interest in Schools. The membership in the Parent-Teacher Association increased from 26,560 in 1932-33 to approximately 70,000 in 1938-39, which is an indication of a growing parent interest in the welfare of the schools subsequent to the adoption by the state of the present school administrative plan. This healthy growth of membership, according to a general consensus of opinion, is a movement in support of a continuing program for better schools. The program of the Parent-Teacher Association in North Carolina is in harmony with the

general goals of the administration of the state system of public schools.

The North Carolina School Board Association has been organized in recent years and includes in its membership a large majority of the school boards in the state. These developments, coupled with the impressions given the writer by numbers of individuals, point rather clearly to the continued and apparently growing interest in schools in North Carolina on the part of the general public.

There is also apparent, however, a feeling that local subdistricts of the county units, as well as county and city units, need to be alert and active lest in the long run they somewhat lose interest in the local school. Educational leaders in the state, through organized programs of public school-community relations, seem to be effectively safeguarding this possible tendency at present.

Summary and Conclusions

In attempting to determine specifically which phases of educational progress in North Carolina might be attributable with credit to the reorganized plan of school administration one is confronted immediately with the question of the degree to which such progress can be attributed to the reorganization and to what degree to natural progress and development apparent also in other states having a more localized plan of school administration. The North Carolina plan has resulted in a leveling of educational opportunities which has been very favorable for rural areas but which has tended somewhat to "level down" those larger urban districts which earlier were in the vanguard of the more progressive districts in the state. In some of the phases discussed above, definite evidence of progress made can be attributed with credit to the North Carolina plan. In other phases but little progress has been made, though this might have been the situation had the former local plan for financing and administering schools continued.

Certainly for the amount of money expended for elementary and secondary schools there is no other state in the Union which is getting more in educational value per dollar spent than is North Carolina. It will be remembered that the schools of New York State are not without their weaknesses, as diagnosed by the recent Regent's Inquiry, despite the fact that more funds are available for school purposes there per capita than in any other state.

The time is not yet ripe to appraise fully the final effects educationally of the plan for administering schools on a state basis being experimented with in North Carolina. A sound foundation for an outstanding state school program has been laid. Much promise is inherent in the plan. Future progress and the final appraisal of the general results and educational effectiveness of such a plan is dependent upon the nature and extent of progress made over the significant period of the next ten or fifteen years.



³Edwin S. Dougherty, *Study of Public Schools in District Nine of North Carolina*. Unpublished Master's Thesis, Peabody College, 1938, 49 pp.

Urbanism and Public School Expenditures in the United States

Arvid J. Burke¹

Urbanism. Urbanism is not confined to the corporate limits of cities. One can drive from Wilmington, Del., to Boston, Mass., by way of Philadelphia, New York City, New Haven, Hartford, and Springfield without leaving a metropolitan area except for two stretches of approximately ten miles each — almost four hundred miles of urban territory.

In the center of this vast urban region is the New York City metropolitan area with its nearly fourteen million residents. In this small area is concentrated a population larger than that of any state and greater than that of all the following nineteen states taken together: Arizona, Colorado, Delaware, Florida, Idaho, Maine, Montana, Nebraska, Nevada, New Hampshire, New Mexico, North Dakota, Oregon, Rhode Island, South Dakota, Utah, Vermont, Washington, and Wyoming.

There is no other urban section in the United States which may be compared with the New York City metropolitan area. Indeed, only one area in the world, London County, England, is at all comparable with it.

Until the full effects of such a degree of urbanism upon public finance are known, it is somewhat ridiculous to infer that the cost of government or education in New York City is too high because other cities over one million in population in the United States tend to spend less per capita. Furthermore, with over half the educational expenditures in the states of New York and New Jersey being made by the New York City metropolitan area, it is most misleading to compare these two states with states like Pennsylvania and Ohio and make any inference about costs.

Urbanism and public-school expenditures in the United States and England. Public-school expenditures per pupil are considerably higher in Greater London than they are in the smaller urban centers in England. The average per-pupil expenditure for elementary education in Greater London is seventeen pounds, fourteen shillings for 1934-35; the average expenditure for places 100,000 to 999,999 outside the metropolitan area is 27 per cent less; the average for places 30,000 to 99,999, 30 per cent less; and the average for places 10,000 to 29,999, 35 per cent less.²

The relationships existing among public school expenditures in the New York City metropolitan area and those in the smaller urban centers in the United States in 1930 were almost the same as those found among expenditures in Greater London and the

smaller urban centers of England. The average per-pupil expenditure in the New York City metropolitan area for 1929-30 is \$140; the expenditure for places 100,000 to 999,999 in the United States is 23 per cent less; the average for places 30,000 to 99,999, 32 per cent less; and the average for places 10,000 to 29,999, 41 per cent less.³

Since the depression, the relationships in the United States have changed somewhat, but allowance must be made for the fact that the United States may not have experienced the same degree of economic recovery in 1935-36 that England had in 1934-35.

The above comparisons must be interpreted carefully. *Note that only the relationships among expenditures are compared.* The expenditures themselves are not compared because (1) the United States figures include both elementary- and secondary-school expenses, and the English only elementary, (2) the items included under current expenses are not exactly the same in the two countries, and (3) the price levels are not the same.

Urbanism and public expenditures in New York and New Jersey. The New York City metropolitan area has had several serious effects upon public school expenditures in the states of New York and New Jersey: (1) Because 60 per cent of the school population of New York State and 72 per cent of the school population of New Jersey are located in the New York City metropolitan area, average public school expenditures in these states are not much more than averages for the metropolitan area. (2) Because the per cent of the school population of New York living in the New York City metropolitan area has increased, average public school expenditures in the two states have shown a fictitious increase. (3) New York City has tended to have an inflationary effect upon public school expenditures in surrounding municipalities

and to some extent upon other sections of the states of New York and New Jersey.

The growing importance of the New York metropolitan area in the two states is shown by facts like these: In 1870, 35 per cent of the school population of New York lived in the metropolitan area; in 1930, 61 per cent. In 1870, 54 per cent of the New Jersey school population lived in the metropolitan area; in 1930, 72 per cent. In 1870, 45 per cent of the public school expenditures of New York originated in the metropolitan area; in 1930, 66 per cent. In 1870, 59 per cent of the expenditures in New Jersey were metropolitan; in 1930, 75 per cent.

The increased percentage of the public school population of New York State in the New York City metropolitan area caused much of the increase in state average expenditures between 1870 and 1930. School expenditures per class per month in New York City increased by 350 per cent from 1870 to 1930, much less than other sections of the state; yet, this resulted in over a 600 per cent increase in the state average expenditure. The reason for this effect is that average expenditures in New York City have been higher than those in other parts of the state since 1870. Every increase in population within the city increased the importance of New York City expenditures in determining the average for the state. With the overflow of New York City population into the suburban counties, average expenditures in these counties increased to the New York City level. Hence, with over 60 per cent of the school population living in New York City and its suburbs, where expenditures are highest, the average expenditure in the state became the average for the metropolitan area. *This explains why the state average showed an increase of 691 per cent when most of the state showed an increase of a little over 400 per cent.*

The New York City metropolitan area affected public school expenditures in New Jersey in almost the same ways as it did in

¹Derived from U. S. Office of Education, *Statistics of City School Systems*.

TABLE I. Average Public School Expenditures per Pupil per Year in the United States by Size of Cities and by Metropolitan Areas, 1935-36*

Group	Size of City			
	Over 1,000,000	100,000 to 999,999	30,000 to 99,999	10,000 to 29,999
Met. areas over 2,000,000 exclusive of southern states and New York City.....	\$115	\$113	\$114	\$104
Met. areas 500,000-2,000,000 exclusive of southern states.....	116	117	95
Met. areas 100,000-500,000 exclusive of southern states.....	103	107	83
Cities outside all met. areas exclusive of southern states.....	84	84
Cities in southern states.....	71	56	48

*Data from U. S. Office of Education Biennial Survey of Education, 1934-36. Current expenses plus interest on indebtedness.

¹Director of Studies, New York State Teachers' Association.

²Derived from List 43, Board of Education, London, England.

TABLE II. Relationships Among Estimated Average Annual Incomes of Nonrelief Families by Size of City Compared with Relationships Among Average Annual Expenditures per Pupil for Public Education, 1935-36

Population Group	Per Cent School Expenditure per Pupil is of Family Income	Per Cent Average is of Average for Metropolises	Average School Expenditure††
	Family Income†	Family Income†	School Expenditure††
Metropolises*			
1,500,000 and over.....	4.5%	100%	100%
Large Cities**			
100,000-1,500,000	4.5	80	77
Middle-Sized Cities**			
25,000-100,000	4.2	67	61
Small Cities**			
2,500-25,000	3.8	61	51

*North Central region only (New York, Chicago, Philadelphia, and Detroit) — average for all four in the case of school expenditures to offset influence of New York City on the average of New York and Chicago.

**See National Resources Committee, *Consumer Incomes in the United States*, pp. 46, 47 for list of cities.

†*Ibid.*, p. 23.

††Data taken from U. S. Office of Education *Biennial Survey of Education*, 1934-36, for cities listed above.

New York State. Average expenditures in the central cities of the New Jersey section of the New York metropolitan area increased 354 per cent between 1870 and 1930, almost equal to the increase of 350 per cent in New York City. The suburbs showed the greatest per cent of increase as they did in New York; and the increased proportion of the school population in the New Jersey section of the New York metropolitan area inflated the per cent of increase in the state average expenditure. The reasons are the same as those found in New York State. The central cities had the highest average expenditure in 1870 and in 1930. As the population of the central cities and New York City overflowed into the suburban counties, average expenditures in these counties began to rise to the level of the central cities. Increase in the school

population in the central cities and suburbs where expenditures were highest increased the state average by a higher percentage than actual percentage in the metropolitan area.

The increase in average expenditure per class per month in New Jersey from 1870 to 1930 was almost the same as that in New York State — 688 per cent and 691 per cent respectively.

Urbanism and public school expenditures in other states. Within other metropolitan areas in the United States public school expenditures tend to follow the same pattern as they do in the New York City metropolitan area. The larger the metropolitan area the higher the average expenditure tends to be according to Table I. Expenditures in cities outside the metropolitan areas generally are lower than those in

metropolitan areas. Although the expenditure levels are lowest in the southern states, the same relationships exist.

Causes of the relationships found. Differences in assessed valuation per child, the most widely used index of ability to support public schools, do not explain differences in expenditures per pupil for public education in urban areas. The differences in property valuations are much greater than the differences in expenditures. Data on assessed valuations were not available for 1935-36, but 1929-30 data indicate that assessed valuation per child in the smaller cities is 64 per cent less than that in the New York metropolitan area; but school expenditures are only 41 per cent less.

Income per family, the real index of ability to spend money on education, seems to show the closest relationship to school expenditures. Large metropolitan areas are able to spend more for public education because they have higher average family incomes than the smaller cities. Differences in average income per family are generally accompanied by corresponding differences in school expenditures per pupil. The average income in the smaller cities is 39 per cent less than that in the largest urban centers (Table II). It is true that school expenditures in smaller places show a 49 per cent difference, but this probably can be explained by the fact that they spend a smaller percentage of their family income for education. Because their incomes are lower, they probably cannot afford to spend as high a percentage of their incomes for education — food, shelter, clothing, and other life necessities having the first call on income.

The Advantages of an Activity Program

James A. Fitzgerald¹

In the traditional school of education there is a strong tendency to glorify subject matter. Very often, teachers and principals worry about the teaching of certain items, units, or subjects. Sometimes they are concerned about teaching through a book or through a course of study, without considering how these materials and courses of study fit the needs of the different pupils. For many years there has been an inclination to criticize this approach to the education of youth. Burk, in the San Francisco Normal School, was perhaps the first in this country to emphasize the importance of teaching each individual in accord with his needs, capacities, and interests. He showed the value of arranging curriculum and programs to fit the needs of the retarded and the gifted as well as those of the ordinary child. Parkhurst, Washburne, and others in many parts of the world have set up programs which focus attention upon the child rather than upon the subject

matter taught. Many educators have protested vigorously against the glorification of subject matter as such, and have recommended an activity program in order that a child might learn through his activities that which is necessary to his growth and development.

A controversy has thus arisen between the so-called traditional and the so-called progressive schools. A careful student of education, or a conscientious teacher, naturally wishes to know if there are advantages in an activity program, and if the advantages outweigh the disadvantages.

It is not the purpose of this paper to present the disadvantages of an activity program for they have already been presented. It is the purpose, however, to set forth some of the advantages² of an activity program. In the beginning it is necessary to say that one cannot set forth the advantages of the activity program for there is no one program recognized as such.

When one speaks of an activity program, he is on safer ground if he refers to a particular program, or at least to a specific type of activity program. There are hundreds of different programs and what may be of advantage in one set of circumstances may be disadvantageous in another.

A graduate class studying activity curriculums listed forty dangers and fifty advantages of activity programs. These were organized under definite heads and the advantages are presented here in brief as follows:

1. An activity program can assist the child to become independent, cooperative, and responsible.
2. An activity program may recognize and utilize individual capacities, interests, and abilities of each child.
3. An activity program, by utilizing life situations and lifelike situations, can make learning meaningful through fascinating activity.
4. An activity program fosters active

¹School of Education, Fordham University, New York, N. Y.

²Some dangers of an activity program were suggested in last month's issue of the JOURNAL, p. 35.

growth and development of the child rather than passive absorption of knowledge.

5. An activity program itself can be a flexible and informal plan for improving living and enhancing learning without frustrating growth and personality.

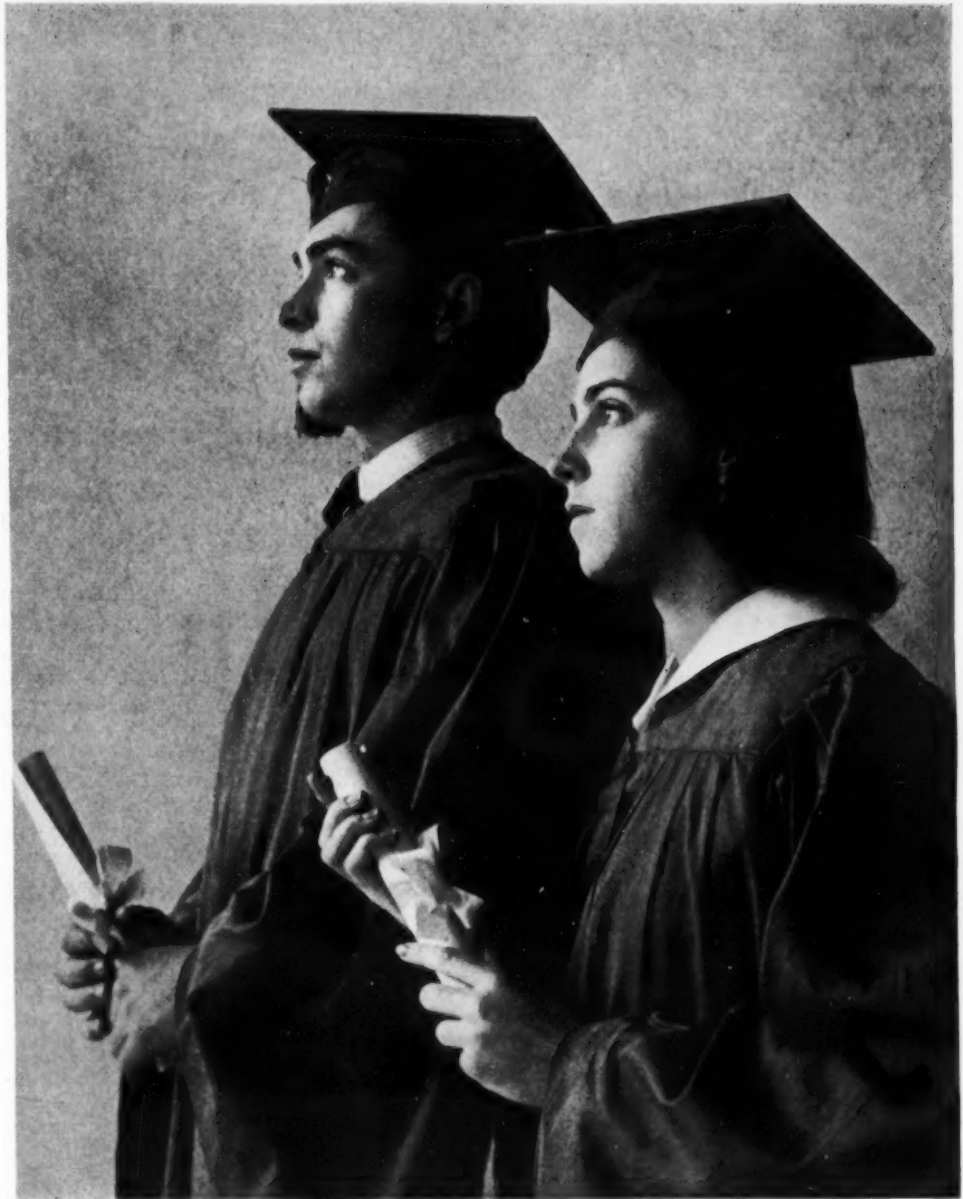
Growth in Independence, Cooperation, and Responsibility

A well-planned activity program fosters independence. In such a program the child learns to initiate. That is, as suggested by Burnham, he may choose his own tasks, plan his own activities, and make his own solutions. Under the guidance of a good teacher the child naturally is motivated to choose the tasks in which he is not only interested, but which he needs for his living and learning. He learns to evaluate not only the solution which he makes but also the value of the plan which he has used in making the solution. He learns to develop a sense of values and one of the greatest outcomes of this approach may be the fact that the child learns to know whether he has spent his time profitably or not.

In learning to become independent the child develops responsibility for he realizes that one of the adjuncts, or rather one of the correlates, of independence is responsibility. In an activity program he soon learns to become responsible not only by doing the little chores and drills, but also by acquiring the larger and more complex attitudes and abilities which are necessary for living in a society of increasing complexity. In such a program the child comes to know the value of leadership and also of followership. He recognizes the importance of cooperation and the dangers of noncooperation. He sees the necessity for learning to think and plan that he may become capable of exercising independence in choosing problems and attacking them.

In this training period the learner comes to recognize the importance of democracy as a way of living ideally with his fellow men. Democracy rather than dictatorship in the home, in the school, and in the community, becomes prized as the fairest way of just and intelligent living. When rules are imposed from above, although the child may not show overt resentment, he naturally does not develop initiative, independence, and responsibility; his discipline is not that of self-control because it is more or less forced upon him. If, however, the problems and activities of the school, the home, and the community are considered reasonable and necessary by pupils and teacher, and by child and parent, growth in power and judgment cannot help but be developed.

Good thinkers realize that if the child is to be an independent, cooperative, and responsible adult, these qualities must be developed in his childhood and adolescence. It is preposterous to suppose that a child may be treated as an inferior until the day of graduation and on that day blossom out as a peer in society. An activity program properly devised, can provide for the development of individuals in a group, so



Looking Forward

Camera study by George A. Smith, Supervising Principal, Quarryville, Pennsylvania.

that equality and citizenship in our democracy will not be a shock to them or blind them to its necessary responsibilities and duties by its dazzling freedom.

Consideration of Individual Differences

It is to be sincerely hoped that the days of the "lockstep" are past in America. Each child is different from every other child; his personality differs from other personalities. He has distinctive individuality. Each shall live a life different from other lives. Some will become administrators, some statisticians, some musicians, others farmers, doctors, lawyers, and still others laborers or shopkeepers. It is the duty of the school to cooperate in the training of each child, so that he may live well and happily in our great democracy. This cannot be done by giving each, no matter what his talents or deficiencies, the same training and materials.

A well-conceived activity program is in

theory at least and in practice, too, better fitted than the traditional program for the development of the powers, curiosities, and abilities of the individual in accord with his needs and interests. For example, in an activity program the child's ability to express is fostered when that ability is needed. Growth is one of the goals; poise and self-confidence are developed through freedom and opportunity. If a child makes a mistake, that mistake is pointed out to him. It is considered to be no disgrace to make a mistake but it may be a disgrace to make that mistake over and over again.

Some children are curious about literature, other children are curious about history, and other children are curious about science and mathematics. Such curiosities are permitted, in fact, they are fostered and cultivated. The teacher not oppressed with the minutiae of subject matter, develops a personal interest in each child, in his interests, and his growth. The teacher, in fact, is happy when each of her pupils

shows originality and creative ability in thinking and expressing. She is aware, however, of the necessity for the careful appraisal of each child's difficulties, and of her responsibility for teaching each on a level where he can understand, enjoy, and appreciate his work. This is said to be more true of an activity program than of the traditional plan of instruction.

In an activity program each child may progress at his own rate. Here, if a child can learn only three fourths of what was in the traditional curriculum he learns that, and he is not failed because he has not learned the other quarter. On the other hand, if he can learn three halves as much as was contained in the traditional course, he is permitted to proceed to learn it all, and he is given credit for what he has learned in one way or another. In other words, no child is hampered or handicapped because of hard fast grooves. If a child is challenged in a problematic situation, he is interested in doing his best because he has some part in the planning of his work and because he sees objective results of his work. He comes, in fact, to learn to guide himself, to use his time and energy economically and efficiently, to correct defects, and to avoid pitfalls.

Life Situations and Thinking

School is not a sphere apart from life; in fact, it is a part of life and all life is time and occasion for learning. An activity program utilizes life situations in order that learning and thinking may be real. When a project is associated with life outside the school, or with something in which a child is tremendously interested, it is not difficult to engage the strongest and best efforts of the child in the solution of his problem or the accomplishment of his project. In fact under the impetus of such a problem, school time is not always sufficient for learning. Children, so motivated, carry their problems and work into their lives outside the school. The group that studies the necessity for improving a road because such an improvement is a real need of the community, develops skills, abilities, and attitudes by that study. Such a group, several years ago in a rural community, recognized a bad road condition near their schoolhouse. This group asked that they be permitted to study roads in order that they might devise a plan for the improvement of this road and so solve their transportation difficulty. This group used reference books, wrote for materials, and interviewed authorities on road building. They considered several types of roads: the concrete, the macadam, the brick, the gravel, and the well-graded dirt road. They held meetings, reported their findings, debated and discussed costs of materials, and considered the feasibility of several plans for a road. Finally, they decided upon a gravel road.

At this point the pupils needed only a word from the teacher that their road project was only partly done. They continued to meet until a petition for a road was framed. They appointed a committee

to present their petition to the town board and they were successful in their fight for a road. This illustrates the utilization of a life situation in a more or less traditional school. In fact, it would not be desirable to change the traditional curriculum to an activity program overnight. Such a tendency should come as teachers realize the greater possibilities for social service in a real activity program, for in such a program there is greater opportunity to guide children to attainment of worthy home membership, effective cooperation in society, better use of leisure, initiation in choosing and planning a vocation, and conscious development of good character.

If an activity program is planned in terms of outcome or goals and if the child is given freedom to attack his problems in attaining these outcomes, much good can come to each individual child. Of course, there is always the necessity for teacher guidance; there is opportunity for a teacher with vision. One purpose of a good teacher is to make herself superfluous to the child, for one of the greatest purposes in education is that the child learn to strike out alone under his own guidance.

Valuable Mental and Physical Activity

Because the young child is an active being, the school should be cognizant of his tendency to be active. The shock of passivity, of teacher-imposed discipline, and of hard fast rules, has driven many a child into truancy. Misfits and failures have resulted because of tyranny in the classroom.

An activity program recognizes the innate tendencies to activity and permits some degree of freedom in attacking the problems of learning. Projects are initiated, problems are undertaken, excursions are planned, which necessitate activity both mental and physical. An activity program recognizes the fact that all learning is active. It recognizes also the fact that learning should be planned, systematic, and scientific. It recognizes further the value of incidental and concomitant learnings. For example, it may be necessary for a child to introduce a speaker who has been engaged to talk on traffic safety. Because the child doesn't know how to introduce the speaker properly, he goes into the library to the card catalog, or engages the help of the librarian to discover the proper method for the introduction of a speaker. Not satisfied with his findings he approaches his teacher for her suggestions and advice. Not only has the child undertaken the problem of how to introduce a speaker under his own guidance, but incidentally he has learned to use the library more effectively, and has learned when to ask for guidance from experts. Thus his judgment has been exercised actively.

Often interests in work through an activity program begets strong and driving effort. Effort, on the other hand, causes horizons to broaden, and new interests to be discovered. An activity program shifts the emphasis from the learning of subject

matter and curriculum to child growth and development; it directs the attention to the pupil rather than to the teacher; it reminds critics and authorities that self-activity is associated with learning.

Activity has a formative influence upon one's personality. Worth-while activities develop the individuality of each in play, sports, work, and creativeness. Wrong activities also mark one. Growth comes, not so much from doing, as from doing tasks correctly. Only through such activities can one make his education truly his own. An activity program considers the whole child, his personality, his mental activities, and his physical activities.

Activity Program Favorable to Personality Development

Many writers argue against an activity program because of untried or often unworthy activities in some school or other, which might have been as bad or worse had the traditional plan of instruction been followed. However, there are benefits in the freedom permitted and in the responsibilities self-imposed in a properly organized activity program.

An activity program which fosters needed activities and flexible plans for the growth of each individual is desirable in education. Informality is valuable in such a program. The ability to discuss and to converse without fear of ridicule is systematically developed in the good program. Each child's schedule is carefully considered by his teacher in order that the outcomes of systematic thinking, effective oral expression, adequate written expression, and the ability to use the textbook and the library may not be neglected. An activity program awakens in teachers and school authorities the recognition of the necessity for teaching not only the whole group as a group — this, too, must be done sometimes — but also of the advantage of dividing the class into smaller groups for instruction. Individual instruction is, of course, often ideal, but group instruction is a necessity. An activity program allows a flexibility which permits effective individual guidance as well as necessary group instruction. Both properly fitted to child growth assist in the development of personalities.

An activity program provides for book clubs, debating societies, athletic teams, activities in character, newspaper activities, and yearbook activities. A good activity program gives opportunities for the child to develop his own powers and to engage in social activities. It provides training that will be of value in life outside the school.

Anna E. McNichols, who studied twenty-four theses and books in the field, indicates that activity is extremely valuable in educating the child.³

³Education is concerned with initiating such activities among children as will

- a. Evoke work with an interested will
- b. Lie along lines that fit their ability

(Concluded on page 91)

³McNichols, Anna E., *The Principles of Progressive Education*. Master's Thesis, Loyola University, Chicago, 1935, pp. 139, 40.

Fifty Years of Temperature Control in School Buildings

J. R. Vernon¹

Fifty years ago, in a school building somewhere, a janitor sat drowsily in a chair tilted back against the wall of the furnace room. The tinkling of a bell awakened him from his afternoon reverie, and, knocking the ashes out of his pipe, he arose and strolled over to look at an annunciator box on the wall of the basement corridor. This glass-covered affair, with numbered arrows like those seen in country hotels and Pullman cars, revealed the fact that Room No. 5 required heat.

Our friend wandered over to one of the big, round flues leading, octopus fashion, from the furnace room and covering almost every square foot of the basement ceiling. There, he grasped a bar marked "5," in black paint on the metal flue, and turned it so that the damper connected to the cranklike handle was almost open. In that way, he arranged for Miss Smith and her charges in the room served by that particular duct to be relieved of the chills that were beginning to beset them.

The cause of this unseemly activity, in an otherwise quiet day, was an innocent-looking thermometer in Miss Smith's room. Its mercury column had fallen below 72° and, connected to a wet-cell electric battery, like its fellows in each of the other rooms, the mercury had broken an electric contact and caused a relay, in the annunciator cabinet in the basement, to "drop out." This action rang the "awakening bell" and caused the indicating arrow of Room 5 to call for "more heat." Conversely, when the column in the thermometer in any room rose to 72°, the contact was restored, the relay "locked up," the bell rang, and the arrow said "too hot." Again, our friend the janitor, hurried (?) to the proper damper and closed it.

Completely Automatic Systems Developed

That was "automatic" temperature control something over fifty years ago! Those who recall Mr. Herman W. Nelson's interesting article on "School Heating" in the JOURNAL for March, 1940, will guess that the heating-ventilating system, to which these regulating devices were applied, was a "gravity hot-air" installation. The heating effect was depended upon to "pull in" outdoor air, through the furnaces and up through the heating flues. At the same time, this movement was supposed to push the "foul air" out through baseboard vents in the classrooms and thence, through masonry flues within the walls, to dry closet vaults and vent stacks.

Later on, as inevitable improvements were made in school heating and ventilat-

ing installations, means were developed so that the dampers were moved, automatically, at the command of the "thermometers" in the rooms. Instead of using mercury thermometers, making and breaking electric contacts, to "telegraph" the changes in temperature, thermostats were developed. The earliest forms were mechanisms in which bimetallic strips, or hollow metal disks filled with volatile fluid, served as elements which could be depended upon to change shape or position, uniformly, when subjected to temperature variations. It is interesting to note that these same types of sensing elements, smaller in size and greatly refined, are in use today in leading makes of modern thermostats.

Electropneumatic and All-Pneumatic Systems

One of the earliest types of automatic temperature regulation systems in which thermostats controlled dampers, without manual aid, consisted of electric thermostats and pneumatic damper operators. The thermostats operated relays in the basement, as in the case of the annunciator scheme described above. These relays were, essentially, solenoid-operated compressed-air valves. By supplying compressed air to each relay valve in the basement cabinet, and running a separate pipe from each to the respective damper, it was possible, by means of a diaphragm device with lever, to move the damper at the will of the thermostat.

Later, all-pneumatic systems were made possible by the development of pneumatic thermostats. Compressed-air piping, concealed in the walls of the building, supplied the thermostat in each room. A separate compressed-air pipe, leading from each instrument to the respective diaphragm-damper operator, in the basement, enabled the thermostat to act as a variable reducing valve and thus to cause the damper to assume any desired position. Such systems of automatic control, with many refinements in thermostats and damper operators, are in general use in schools, and many other types of buildings, at the present time. There have been developed, also, all-electric regulation systems, with electric thermostats coming into use, again, but now operating an electric motor to move each damper.

The Inventors of Automatic Control for Schools

Any sketch touching on the development of automatic temperature control in schools would be incomplete without mention of the two men who, without fear of contradiction, may be classified as the most prom-

inent pioneers. Curiously enough, both of them performed their early experiments in Wisconsin, home state of the SCHOOL BOARD JOURNAL, the Golden Anniversary of which is being observed, this year, by publishing this and other articles on the history and development of schools, school administration, and school equipment.

Mr. Warren S. Johnson was a member of the faculty of the State Normal School at Whitewater, Wis. An original experimenter with storage batteries, and the like, it was his idea to hook up thermometers, electrically, first to signal temperature changes and later to control temperatures automatically. In 1883, after several years of preliminary work in Whitewater, Professor Johnson went to Milwaukee, where he interested capital and, in 1885, began to engage commercially in the business of making and installing automatic-temperature-control systems.

On the other side of the State of Wisconsin, Mr. William P. Powers, in La Crosse, was performing the experimental work which led to the invention of his particular form of thermostat. A strange coincidence was the fact that Mr. Powers grew up in Palmyra, Wis., not far from Mr. Johnson's home town of Whitewater. He must have left that section of the state at about the time that Mr. Johnson came there to teach.

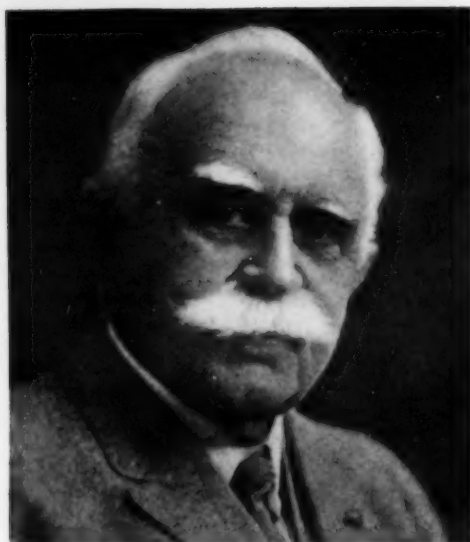
Considering the current trends of American business, it is rather interesting to note, here, that the two commercial organizations founded by these men have endured, without essential changes, down to the present time. Though tremendous expansion and inevitable changes in personnel have taken place, both concerns are independently owned corporations, still bearing the names of their founders.

School-Heating Developments Pioneered Entire Industry

Of particular interest to school people is the fact that the development of the arts of heating and ventilating, through fifty years, and of the closely parallel automatic-temperature-control industry, has been fostered, to a great extent, by the demand for improved equipment in school buildings. It is recognized generally that the first improvements on the original "gravity hot-air" type of installation were worked out for schools. Fans or blowers were introduced, to pull the "foul air" out of the rooms or to push outdoor air into the rooms. This resulted in better distribution of "fresh air" throughout the building, an accomplishment not possible with gravity systems, except in very small structures.

In some cases, these "fan-furnace" sys-

¹Chicago, Ill.



William P. Powers
Chicago, Ill.
Inventor of the Powers' temperature regulating system.

tems were arranged so that cooler tempered air could be led into the various flues from a part of the chamber behind the furnaces, while heated air passing across the fire boxes could be taken from the other side of a partition in the chamber. In such installations, the thermostat in each room operates a double-blade damper, so that heated air, cooler air, or a mixture of both can be carried by the duct which serves the room in question.

Steam Becomes a Factor

Gradually, steam heating came into use. At first, in the case of schools, large banks of indirect radiators were employed in much the same way as the furnaces. The "double-mixing-damper" type of automatic temperature control remained, so far as the regulation for each room was concerned. However, automatically controlled steam valves, and duct thermostats to operate them, were developed, so that each tier in a bank of steam heaters could be turned on and off to conform to the heating effect required by outdoor conditions.

Soon after these straight "steam-blast" heating-ventilating installations came into use in some buildings, steam radiators found their way into the classrooms of others. In order to accomplish some ventilating effect, an outlet was provided in the wall behind at least one radiator in each room. An elbow-shaped metal box connected with the outlet and encased perhaps the center one third of the radiator. The heating effect of the radiators, expanding the air in the room, was relied upon to draw in some of the outdoor air, over the encased radiator sections.

Automatic temperature regulation of these "direct-indirect" systems was accomplished by a thermostat in each room to control valves on each radiator. As a further refinement, a duct thermostat was inserted through the "fresh-air" duct to guard against drafts, by making sure that the room thermostat did not close the valve

on the direct-indirect radiator unless the air being drawn in was at a comfortable temperature. Then, as now, the temperature-regulation industry took the control problems presented by heating engineers and manufacturers and solved them.

The Modern "Split" System

The next advancement in heating and ventilating for schools was the advent of the "split" system. Since installations of this type were definitely the first step toward complete "central-plant" air conditioning, as we know it today in public buildings, theaters, department stores, and large restaurants, we find school requirements again performing valuable pioneering for an entire industry. The "split system" is a combination of the early straight "fan furnace" or "steam-blast" ideas and direct steam heating. Radiators in the rooms take care of the actual heating, while ducts supplied with air from a blower at a central point fulfill the ventilation requirements. Many such systems still are installed.

So that no drafts will be felt, this air for ventilation is heated by means of steam-blast coils in the main duct, usually near the outdoor air intake. The necessity for keeping this "ventilating air" at a comfortable temperature, low enough so that the rooms will not be overheated, led to the further development of duct thermostats, automatically controlled steam valves, and outdoor air- and vent-damper controls. Mounted on the outside of the main duct, with their temperature-sensing elements extending into the path of the air inside of the housing, these duct thermostats operate valves which carry steam to the blast coils and also control by-pass dampers which allow part of the air to pass below or around the coils, when the temperature is too high. . . . The direct radiators, in the rooms served by "split systems," are controlled, as before, by room thermostats which operate radiator valves.

The scheme of carrying air into classrooms for ventilating purposes only, suggested a means of taking moisture to the rooms in just the right quantity for healthful and comfortable conditions. It was discovered that vapor could be introduced in the path of the air in the ducts. However, in order to prevent too great a humidity, it became desirable to operate automatically a valve on the supply of moisture. This requirement led to the development of a new "family" of controlling instruments, similar to thermostats but sensing percentage of saturation, instead of temperature. The devices are referred to, variously, as "humidistats, humidostats, hygrostats, and humidustats," some of which are trade names, despite the fact that we omit capital letters.

Unit Ventilators Appear

The next development in the science of school heating and ventilating was the introduction of individual ventilating units, mounted in metal cabinets and placed,



Warren S. Johnson
Milwaukee, Wis.
Inventor of the Johnson temperature regulating system.

without ducts, directly in the room to be ventilated. Since these units are, essentially, small reproductions of "central-plant" ventilating systems, with blower and motor, filters, heating coil, and dampers mounted within the cabinet, no entirely new automatic-temperature-regulation equipment was required. However, the manufacturers of control apparatus, and those who made the unit ventilating machines, cooperated closely, spent much time and not a little money in working out the proper sequence of operation between thermostats, valves, and damper operators.

Improvements were made in the familiar gradual acting types of thermostats, and in the valves and damper motors which they operate, so that school authorities might have the benefit of the very best type of control for these individual ventilating plants. In general, the accepted practice is to accomplish the automatic regulation in such a way that the unit ventilator in each room (perhaps more than one, in a large room) will carry as much of the heating load as possible. To that end, the automatically controlled valves on direct radiators are opened only in severe weather.

In order to sketch the complete cycle of operation, however, let us assume that our schoolroom is being heated on the morning of a very cold day. The radiator valves are open, and the unit ventilator is delivering all the heat it can. As the room approaches the desired temperature, the thermostat closes the valves on the auxiliary direct radiators. The ventilator continues to deliver heated air.

When the temperature of the room is almost up to the desired point, the thermostat throttles the supply of steam to the unit's radiator or, by means of dampers, by-passes a portion of the air around the radiator, or both. In some types of units, the dampers are arranged in such a way as to introduce varying mixtures of outdoor air and air returned from the classrooms.

Many installations make provision for delivering never less than a minimum proportion of outdoor air, whenever the unit is in operation. Special features of the control apparatus make this automatic, entirely closing the outdoor air damper only during shut-down periods.

"Two-Temperature" Control Developed

Concurrently with improvements in automatic-temperature-regulation devices made necessary by unit ventilator systems and by the introduction of nonferrous radiators of the convector type, the control industry developed a variation of the conventional systems of the past, which has been of great benefit in the operation of school heating plants. We refer to the dual, or two-temperature, thermostat. Modern school buildings, with auditoriums, gymnasiums, shops, and special rooms utilized by various organizations, became more and more a center of activity in the community. It became necessary to heat certain rooms or sections of the building at odd hours. The expense of heating the entire building to normal temperatures at all times was prohibitive.

The use of "two-temperature" control systems makes it possible to heat occupied portions of the school plant to the usual temperature, while carrying unused sections at a lower temperature. The expense

of individual steam mains, if indeed it were possible to select in advance the rooms that might be used at odd times, is avoided, and a very much more flexible operating schedule is possible. Simply by providing thermostats which are capable of maintaining either of two temperatures the automatic-control industry solved a serious problem. This convenient means of setting each instrument, individually or in groups from a central panel, at "occupancy" or "economy" temperatures is employed in hundreds of modern school buildings.

Economy Recognized

It would be absolutely impossible to estimate the total fuel saving which school authorities have enjoyed because of automatic-temperature-control systems. Sufficient figures are available, however, to indicate definitely that the salaries of many administrators and teachers have been paid, through the years, and many thousand dollars worth of school equipment purchased, with the money saved by effective automatic regulation of temperatures. Conservative estimates place these savings in the fuel bill as high as 25 per cent. In some cases, almost unbelievable economies have been effected. One exceptional instance, of recent memory, demonstrates a saving of more than 50 per cent, practically recovering the entire cost of the control system in one heating season.

The Health Angle

Overheating of classrooms, and other areas where pupils work and play, long has been recognized as detrimental, not only to comfort and mental activity, but to health, as well. The automatic control of temperatures, at uniform, comfortable levels, has contributed immeasurably to healthful conditions. Automatic temperature regulation takes credit, not only for preventing overheating, but also for making adequate ventilation more practical and effective, to the end that proper air circulation at comfortable temperatures may be utilized to secure the results of which wide experimentation has proved it capable.

The schoolhouse janitor at the beginning of our story has become, today, the school engineer. No longer does he sit in his chair, tilted back against the furnace-room wall. In many cases, he sits at a desk, in the engineer's office. In any event, he has many duties, in the modern school plant, and many thousands of dollars' worth of equipment are in his charge. The automatic-temperature-control industry is happy to have been able to develop apparatus, trustworthy and trouble-free, to relieve him of some of his former tedious duties. Now, he can devote his energies to other important work entrusted to him by his employers, the school administrator and the school board.

Differentiated Instruction in Reading Activities—II

Emmett Albert Betts¹

A plan emphasizing the use of individual reading materials has been described by Miss Marie R. Conroy of New York City (23, pp. 435-441).² Thirty-six pupils of one sixth-grade class were grouped into three divisions for "informal" reading. For each group the teacher selected a chairman who chose two class members for a helping committee. Forty minutes each day were set aside for an informal reading period during which time the teacher gave advice regarding the selection of books and guided the activities in other ways. In addition to written reports, oral reports were given which were pertinent to a center of interest for the class. The investigator reported objective evidence of growth, better work habits, and increased interest in reading.

In addition to the informal reading activities, three 40-minute periods were set aside for "formal" reading instruction. For these activities the pupils were classified into three groups on the basis of reading ability. The same sixth-grade basal reader was used for all groups. Although this factor un-

doubtedly was compensated for in a measure by the grouping, it is hardly conceivable that all the pupils in a sixth grade can profit from the activities in one reader.

The individualization of reading in the intermediate grades of one school in Sacramento, Calif., is very ably presented by Ray B. Dean (23, pp. 557-563). The plan is characterized by a determination of individual reading abilities, a supply of selected books, "simple checkups" with the emphasis on audience-type reading reports, and individual guidance. Dean concludes: "While the individual plan does not lessen the work of the teacher, it does take away much of the drudgery because pupils are more interested and progress is more apparent."

"An Experiment with Homogeneous Grouping in Reading" was reported by Miss Mary B. O'Bannon of Berkeley, Calif. (23, pp. 533-538). Three hundred and six pupils of Grades III to VI, inclusive, were classified into nine groups for reading classes scheduled at the same hour each day. Although most of the children went on record as favoring the plan, several serious difficulties were encountered. In the first place, the children from all the grades

who fell at the lower end of the distribution of reading scores presented a wide range of capacity and ability problems. Some were overage nonreaders and others were capable of rapid progress; capacities for reading achievement varied widely; and social problems were created. Second, the reading activities of the lower groups were somewhat sterile. Third, integration of school activities was hampered. It was reported that in spite of the limitations, the plan did yield profitable results.

"A Program Organized by Reading Levels" has been described by Miss Margaret L. White (23, pp. 520-527) of the Cleveland, Ohio, public schools. Children of the primary grades and the upper elementary grades are given instruction in reading as two separate units, and each pupil reads at his own level. This is achieved in the upper elementary classes by setting aside one hour each day at which time each pupil is assigned to a room with other children of approximately the same level of reading ability. To further recognize individual variations in reading ability, the pupils in a given room are divided into three groups. Materials are selected in terms of reading levels and interests, and

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²A list of the references was published with the first half of this paper, May, 1940.

each child is allowed to progress at his own rate. Individual study sheets and dramatizations are emphasized procedures.

This general plan described by Miss O'Bannon and by Miss White is similar to that developed by the writer and the staff of the Lomond Elementary School, Shaker Heights, Ohio, during the 1931-32 school year. After one year, however, the staff agreed unanimously that more educational values could be realized by differentiating instruction within the room.

A variation of the Cleveland plan was reported by Miss Anna Wiecking, principal of the elementary school of Mankato, Minn., State Teachers College (23, pp. 528-532). In an experiment to develop a flexible, systematic plan of reading instruction, children known as "visiting readers" are sent to other grade rooms during periods set aside for reading. Assignments to these tentative groupings are based on fairly detailed analyses of difficulties. For other activities each pupil returns to his home room. Immature children who usually would enter the first grade are either retained in the kindergarten or admitted to a junior first grade.

Progress is Recorded

These are only a few of the many experiments that are being conducted in public schools for the purpose of sensitizing teachers to the need for differentiating instruction. Other plans for differentiating instruction have been developed and reported by Clarence R. Stone (23, pp. 431-34), Carleton W. Washburne (24), Martin and Rochefort (23, pp. 539-545), Youngman (23, pp. 564-570), and others. Each investigator apparently has pursued a course of action in keeping with local conditions, and each has undoubtedly contributed to an improved instruction. Although it is not difficult to point out some of the fallacies and limitations of the experiments, it must be admitted that many workers are well on the way to defining their problems and to developing techniques for coping with them. *Progress is being made.*

Sixteen Progress Factors

An increased number of reports on differentiated school programs is evidence that the problem of individual differences is recognized as being a major one, but a careful examination of reported plans reveals a diversity of procedures and philosophies. Some of these variations are well worth noting because of their educational implications.

1. *Recognition of a problem.* Reasons advanced for the development of reported plans include: to provide for the wide range of abilities within a grade, to overcome "minimum essentials" standards, to reduce overage and failures, to lower costs of materials by purchasing more single copies of books and fewer sets of books, to induce teachers to remove shackles of circumscribed thinking regarding the grade classification of children, to provide an enriched reading program not possible with the "lock-step" use of basal textbooks, to



Dr. Arville Wheeler
Superintendent of Schools,
Ashland, Kentucky.

Dr. Wheeler, who has just been elected superintendent of schools in Ashland, was, from 1939 to 1940, professor of education in the Western State College, at Gunnison, Colo.

Dr. Wheeler, a native of Kentucky, received his high-school education in the Paintsville, Ky., high school, and was graduated from Center College in 1926, with the degree of A.B. In 1935 he received the M.A. degree from the University of Chicago, and in 1939 was given the Ph.D. degree by Cornell University, Ithaca, N. Y.

He received his teaching experience in the rural schools of Johnson County and in the Paintsville High School. After three years as principal of the Paintsville High School, he resigned to become superintendent of schools. After four years, he was appointed visiting professor of the State Teachers' College, at Morehead.

He is the author of a number of articles in educational magazines.

introduce flexibility into existing "homogeneous" grouping plans, and to make it possible to deal effectively with larger classes. Many of the plans had their beginning with a yearning "to do something about remedial reading"; others were motivated by a desire to improve instruction for all pupils. Very few of the plans reported deal with the differentiation of instruction above the primary school. A few studies are beginning to appear at the intermediate-grade levels and there is considerable interest in this phase of class organization at the secondary-school level.

2. *Bases.* The basis for grouping varied from performance on a single standardized reading test to a fairly thorough analysis of individual needs. Evidence has been presented elsewhere by the writer to the effect that no one standardized test of reading discriminates among abilities at both ends of a distribution. Standardized test data to determine *individual* levels of ability should be supplemented with subjective findings secured by observing pupils as they read from materials with various levels of readability.

Overemphasis on reading ability as a basis for classification and promotion probably will contribute to overage and to a distorted view of an educational program. In a well-balanced differentiated program, reading ability should be a factor of less

importance than it is in a traditional, regimented program.

3. *Number of groups.* The number of groups used in the primary grades usually varies from three to five, with a few reporting more. At the intermediate-grade levels there appears to be tendency to begin with two groups in a room. If the assumption is made that education increases individual differences, then it would appear reasonable to conclude that more groups should be required at higher grade levels.

4. *Recognition of individual differences.* Actual recognition of individual needs and interests varies from plan to plan. In some plans, grouping with the classroom is another form of regimentation while in others the emphasis is placed on individual reading activities. So long as "grade standards" predominate thinking, substantial progress in the direction of educating *individuals* will be impeded.

Formal vs. Systematic Instruction

5. *Systematic instruction.* Considerable confusion still exists regarding systematic instruction and formal and informal teaching. Especially is formal instruction confused with systematic instruction. By formal instruction may mean the regimented study of a set of basal materials. So far as a given individual is concerned this might be a most haphazard type of instruction leading to learner frustration. As stated by Kilpatrick (20): "We need to understand that the apparent order and system of the traditional school program is both a snare and a delusion." To be systematic, learning must take place in terms of individual development rather than of class averages.

6. *Basal readers.* Basal readers are used extravagantly in some plans and not at all in others. Where almost complete individualization in so-called basal reading activities is achieved, very little use is made of basal readers. In one experiment at the sixth-grade level the "informal" reading activities were individualized, but every pupil was required to participate in "formal" reading activities, using one sixth-grade basal reader. For the most part, however, when tentative groupings were made in the classroom, the basal reading materials were selected in terms of the reading abilities within each group rather than in terms of the grade classification of the children. To make groupings within the classroom and then to prescribe the same dose of pedagogical medicine for each individual is, of course, the height of folly. The criticism is not aimed at basal readers as much as it is toward the ways in which they are used.

7. *Library facilities.* Extended library facilities for a modern school are universally recognized as essential. In schools where four to ten sets of basal readers are supplied each classroom, the same expenditure of money would cover the cost of an adequate supply of single copies. In addition, materials could be selected which would more nearly challenge the abilities and interests of the pupils.

8. *Learner goals.* Varying degrees of attention are given to pupil understanding of learning goals. Cooperative planning by both teacher and pupils is an essential factor in purposeful reading situations.

9. *Reading a perennial problem.* In the literature it is still apparent that many believe reading ability should be fully developed in the primary school or, at least, in the elementary school. This attitude undoubtedly has given rise to the popular misconception that a reading program in the secondary school is essentially remedial in nature.

Reading Not End in Itself

10. *Reading, a process.* Those who report some of the plans for differentiating instruction imply that reading is a subject to be studied rather than a process of thinking or one avenue of learning. They imply that one reads "reading" rather than literature, science, mathematics, and the like. Programs evolved on this basis entail discussions of transfer of learning because the processes often are not developed in meaningful and intrinsically worth-while situations. Reading cannot be conceived as an end in itself.

11. *Reading and study.* The misuse of "reading checks" is evidence that the same approach is made to literary type content as is made to informative type content. Literature is still being *studied* as a medical student studies and dissects a cadaver rather than being *read* and enjoyed as the author intended. A differentiated program should recognize needed approaches to different types of reading material. And, too, it should be recognized that the content is not alike for all basal reading systems.

12. *Enrichment.* Some of the plans provide for differentiation only on the basis of rate of learning. In these instances, a fixed curriculum is established for all; *individual*

progress is measured by class averages, and standardization of human behavior is the chief objective. The enrichment of reading activities varies with the relationship of the pupil to the class average, which means that those above the class average may be encouraged to do wide reading while those below the class average must struggle along with a questionable "minimum-essentials" program erroneously reckoned to bring them up to some kind of class average. This practical inconsistency contributes to curriculum impoverishment.

Engineers of many of these plans for differentiation of instruction have recognized the full import of the problem by beginning instruction where the pupil is and by guiding the pupil into a wealth of reading experiences commensurate with his ability. Enrichment of the reading program is not achieved entirely through increased library facilities. Direct as well as vicarious experiences contribute meanings and reorganizations of previous experiences essential to systematic and worth-while growth.

13. *Class size.* Frequently the charge is made that lock-step programs are necessary in order to deal with large classes. More effective learning should take place in primary classes of twenty and upper grade classes of twenty-five. Unreasonably large classes too often have been accepted without challenge. It is interesting to note, however, that most of the reported plans for reorganizing individual needs have involved classes averaging about thirty-five pupils. This should not be construed as a defense of large classes; instead, this should be a challenge to those who maintain that differentiation is out of the question until class sizes are reduced.

Parents and Pupils

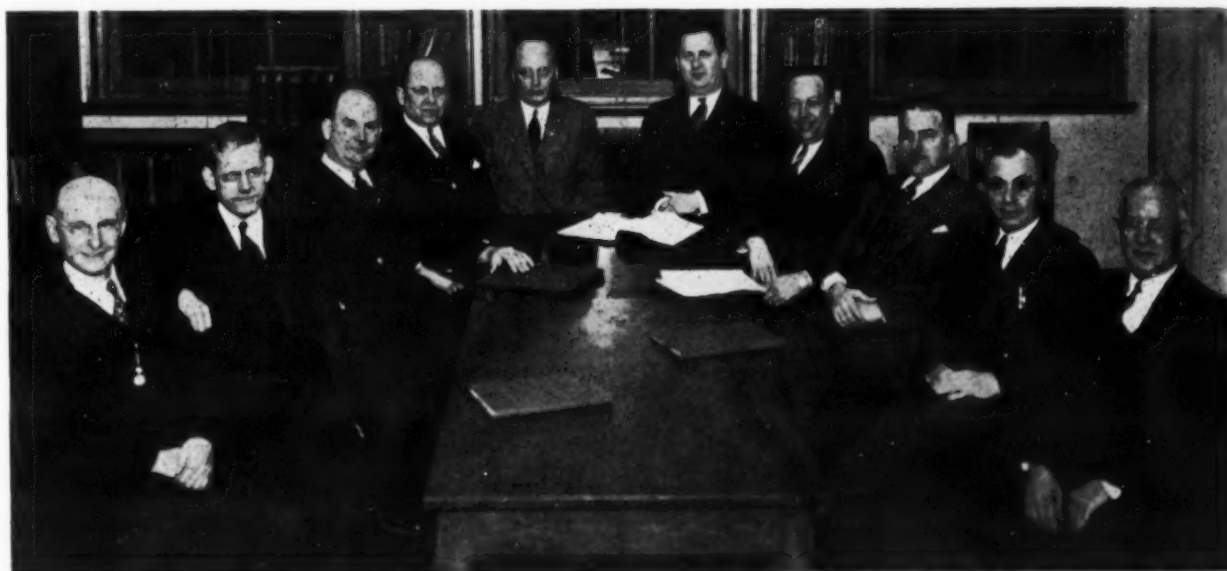
14. *Parent approval.* Additional reports of attempts to break the lock step probably

will corroborate previous findings that parents support reasonable approaches to the betterment of the educational program. The increasing volume of literature providing definite evidence of parental cooperation provides little solace for the educator who is content to dismiss the whole subject as "not worth the candle because parents won't tolerate discriminations." This problem of attitudes in education applies more to educators than to children and parents.

15. *Pupil attitudes.* Many of the protagonists of differentiated instruction have been careful to assay learner opinion. From these investigations it appears to be true that children like the various plans because "they learn more."

Since there is not too high, although a significant, correlation between mental ability and reading ability, a teacher is not justified in labeling groups as "bright," "average," and "dull." Furthermore, the tentativeness of groupings should make such a practice questionable. One certain way to wreck morale is to fail to recognize the contributions of every member of a class.

16. *Teacher interest.* Plans for differentiating instruction have been reported by teachers, supervisors, and administrators. It is interesting to note that supervisors and administrators imply that it is difficult to enlist teachers in experimental plans because they are loathe to break faith with their much-practiced lock-step habits. On the other hand, there is some evidence to indicate that progressive teachers are hampered oftentimes by supervisors who are still in the "time allotment" era. Since differentiation of instruction involves school policies regarding admission and promotion, curriculums, library facilities, and supplies as well as classroom administration, it is necessarily a cooperative enterprise.



Board of School Directors, School District of the Borough of Collingdale, Delaware County, Pennsylvania.
Reading from left to right: George H. Baumert; Frank C. S. Leonhardt, vice-president; Alfred S. MacFarland, treasurer; F. E. Stengle, superintendent of schools; Robert W. Beatty, solicitor; Dr. Harry G. Cornfeld, president; Charles F. Schmied, secretary; Roy J. Robbins; Frederick J. Weiss; Thomas K. McMullan.

State Aid and Economic Conditions as Factors in Its Use

Walter A. Eggert, Ph.D.¹

The general importance of short-term borrowing for school purposes is indicated by the fact that 44 of the 48 states have set up laws to regulate its use by school officials. These provisions have been made in part in recognition of the need for a method of financing the schools for short periods of time before the allocated funds are available. In many school districts where the fiscal year and the tax year do not coincide, short-term borrowing is used as a device by which the schools meet their expenses during the period before taxes become payable. In other instances, it is used as a means of covering a deficit created in the budget by unforeseen emergencies. In some instances it may be employed as a means of financing expenses, pending an issue of long-term bonds. No matter in what form such short-term loans are employed in educational administration, two general principles in relation to their use are generally recognized: (1) Short-term loans must be repaid solely from designated tax levies or other revenue pledged toward their payment. (2) Their validity is dependent upon borrowing against these specified revenues in such amounts and under such regulations as are set up in the statutes.

There is no general agreement among the states as to the percentage of the anticipated revenue which may be borrowed. In Kansas the school districts may borrow only 25 per cent of the anticipated revenue, while in Utah and Georgia 100 per cent may be borrowed. Other states with high percentages are Montana and Illinois where the maximum amount of borrowing under the conditions specified may reach 90 per cent of the money to be received from current tax levies. Generally it appears that such short-term borrowing is limited to about 50 to 75 per cent of the current tax levy.

Some states designate several different percentage limitations for the different funds against which the borrowing is done. In New Jersey, for example, the school districts may borrow 50 per cent of the current tax levy, 80 per cent of the railroad tax levy, and 80 per cent of the tuition due the district. Other states that make a differentiation in the fund against which the borrowing is done are Indiana, Michigan, Mississippi, South Carolina, and Texas.

Some states do not authorize short-term borrowing. The constitution of the State of Missouri prohibits the issuing of interest-bearing warrants by the political subdivisions. In Delaware, where the schools are supported almost entirely by state funds, a State Emergency School Fund is provided for the use of the governor when a school

building is destroyed by fire or some other casualty and there are insufficient funds to replace the same. Maine has no provisions for short-term borrowing by the schools. In Maryland the short-term borrowing that is done is carried on under the general powers and duties of the school board.

Short-term financing also enters into the educational administration of schools by transferring funds or borrowing from funds within the district. This practice is specifically authorized by the statutes of Indiana and California. While it has the advantage of confining short-term borrowing to the district's own resources, thereby saving interest cost, it also has some apparent dangers. It is evident that any funds accruing to the credit of a school district are for some established purposes; in some cases to meet obligations on outstanding

quite positive in the influence which they exert.

Short-Term Loans and State Aid

Since the depression years of the early 1930's, the schools have given considerable attention to the matter of securing additional financial support from sources other than the local school tax levy. Legislative appropriations in the form of "state aid" have been one of the chief means of obtaining this additional revenue. Distribution of these funds is made on the basis of attendance, enrollment, teaching unit, or some other convenient administrative device. The relationship existing between state aid and short-term borrowing can best be observed by studying the trend in the public schools of the State of Florida.

The relationship between the receipts from short-term loans and from state aid in Florida from 1917 to 1938 inclusive is shown in Figure 1. It can be noted that for a period of fifteen years the receipts from both sources were fairly constant. However, when the receipts from state aid began to increase in comparison to school costs, the receipts from short-term loans began to decrease. In 1936 approximately 51 per cent of the total school receipts of Florida were from state aid and only about 1 per cent from short-term loans. In contrast to this we note that in 1925 the money received from state aid was only 3 per cent, and the amount from short-term loans was 20 per cent of the total receipts. It is apparent then that as state aid increased in Florida the necessity for short-term borrowing decreased. The lowest point was reached in 1937.

It is evident that under the present financial setup, short-term borrowing by the public schools of Florida has practically disappeared. While the future financial problems cannot be predicted definitely, it appears probable that with the amount of state aid remaining the same, there should be little need for such extensive short-term borrowing by the schools of Florida as was formerly carried on. It should be remembered that money "borrowed" by the schools must be repaid whether it is on a short-term or a long-term basis. In Florida the schools may borrow up to 80 per cent of the revenue reasonably expected to be received from state funds and from local tax levy. Consequently prompt and adequate payments of state aid will tend to reduce the amount of money paid for interest on such short-term loans.

The same general relationship between state aid and short-term loans as evidenced in Florida also exists in North Carolina, Connecticut, Michigan, and Virginia.

To the arguments presented in favor of

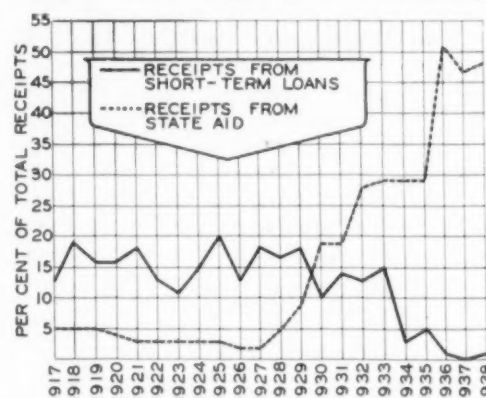


Fig. 1. Percentage of Total Receipts Derived from Short-Term Loans and from State Aid by the Schools of Florida from 1917 to 1938.

bonds. Using such funds for any other purpose is a dangerous practice, especially if there is no assurance that the fund can be reimbursed before it is needed. In many states "transfer" or "interfund" borrowing is definitely prohibited.

General Factors

A study of the financial statements of public schools indicates that the actual short-term borrowing practices tend to group themselves into several rather definite patterns. These patterns reveal that (1) some relationship exists between state aid and school borrowing, (2) that short-term borrowing tends to be influenced somewhat by the general economic conditions at any given time, and (3) that short-term borrowing is a normal procedure in conducting school business. While it cannot be established that the facts herein given are the sole bases for the variance in short-term financing, the definiteness with which certain trends are revealed leads one to conclude that the factors indicated are

¹Chicago, Ill.

state aid as a means of equalizing educational opportunity one might add that it diminishes the financial expenses of the schools by reducing or eliminating the interest cost necessarily paid on short-term loans against anticipated taxes or other forthcoming revenue. That such interest charges can reach a figure that is relatively high is proved by the fact that the schools of the states of Washington and Idaho pay 2.12 per cent and 1.68 per cent respectively of their total expenditures for interest on short-term warrants. Aside from the tendency toward extravagance, it would seem that the excessive interest cost is the most objectionable feature of school borrowing.

Short-Term Borrowing and General Economic Conditions

School districts are not immune to the periods of economic depression which are such a well-known factor in the business world. The importance of having an adequate and stable source of income for the schools is especially desirable during such periods. People become tax conscious and often attempt to substantially reduce the support which is normally rendered to public education.

In order to successfully survive these periods of depression the schools have used several distinct methods. The most significant of these have been the use of reserves or surpluses, the reduction of operating expenses, and short-term borrowing against

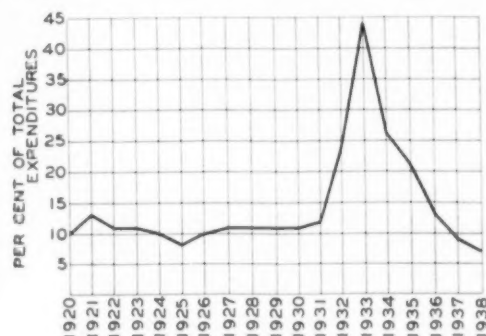


Fig. 2. Percentage of Warrants Outstanding at the End of the Year in the Schools of Oregon from 1920 to 1938.

anticipated revenue. Some school districts accumulate enough surplus money to enable them to finance their operations over short emergency periods. However, the school laws of many states prohibit the accumulation of funds beyond the needs for the current year so that the practice of "hoarding" money for emergency purposes is not generally established in the schools. The second method used is to decrease expenditures. This is a very common procedure for districts which find themselves in financial difficulties. Salaries are reduced, departments and services eliminated, and the offerings of the educational program are generally curtailed. The third method used is short-term borrowing against anticipated revenue. Such borrowing may be necessary even in connection with a limited educa-

tional program, but only its general significance with respect to low economic conditions will be discussed herein. The effect of the recent depressions on the short-term financial needs of the schools can best be seen by studying a graph of one of the states.

Warrants endorsed "not paid for want of funds" form the basis which most of the short-term financing is done by the schools of Oregon. By referring to Figure 2 we can observe the trend of short-term borrowing for schools from 1920 to 1938 in Oregon. It is evident from the graph that in the year

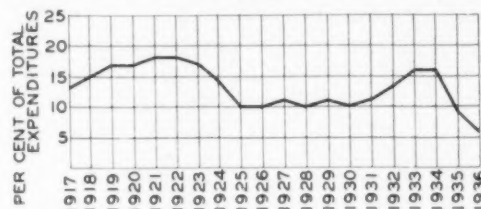


Fig. 3. Percentage of Warrants Outstanding at the End of the Year in the Schools of Colorado from 1917 to 1936.

1933 a point was reached where the warrants outstanding were approximately 44 per cent of the total expenditures. The average amount of outstanding warrants for each of the 19 years covered in the data is about 15 per cent of the total expenditures. That there has been a gradual recovery in the financial condition of the schools is apparent when we note that in 1938 the warrants outstanding had been reduced to 7 per cent. The data show that short-term financing by the use of warrants increased to a considerable degree in Oregon during the depression years of the early 1930's.

Other states in which the same general trend is indicated are: Washington, South Dakota, Nebraska, Florida, Utah, Michigan, Louisiana, Tennessee, Iowa, Indiana, North Dakota, Pennsylvania, and Georgia.

Short-Term Borrowing as a Normal Procedure in School Business

In some instances short-term borrowing is considered a normal method of doing business by the schools. This is especially true when there is a lack of co-ordination between the budget, or fiscal, year and the tax-collection year. A school-budget year might begin on July first while the taxes for the same period are often not paid until November. The cost of operating the schools during the intervening period must be paid from reserves, or from money borrowed in anticipation of the taxes, or from other funds to be received. Inasmuch as the policy of accumulating large reserves is not generally sanctioned or permitted by statute, short-term borrowing is done until the regular revenue is available. The process soon becomes established as a regular procedure and shows little variation from year to year.

There appears to be no inherent difficulties in this method of meeting financial needs, but a readjustment of the tax-collection period would in many cases eliminate the necessity for such temporary loans.

A practical working relationship between the budget year and the tax year could avoid entirely or at least in part the necessity of borrowing money for the meeting of the current expenditures of a school district, or any other subdivision of the state dependent upon tax collections for its revenue.

Figure 3 shows the school warrants outstanding at the end of the year in Colorado from 1917 to 1936 inclusive. There have not been sharp "peaks" and "low points" in the use of tax warrants in Colorado. Apparently the use of warrants has become a normal procedure in the business operations of the public schools of Colorado. Curves for the states of Maryland, New Hampshire, and New York follow a similar trend.



Board of Education, Red Oak, Iowa.

Left to right: Harry Mayhew; George Rushton; F. E. O'Malley, recently re-elected for three years; F. E. Crandall, secretary; J. R. Inman, superintendent; Malcolm Lomas, president-elect; Charles Hayes. — Photograph courtesy Red Oak Express.

PERSONNEL POLICIES FOR BUILDING-SERVICE EMPLOYEES—PART III

H. H. Linn¹

Training the Building-Service Employees

There is a growing recognition of the importance of school building service. The title "janitor" is giving way to the more important sounding "custodian." School officials and teachers are treating the building-service employees with greater respect. New employees are being selected with greater care. They are being granted more liberal rights and privileges. And standards of service are being raised.

However, despite the commendation that may be applied to the school-building-service employees today, it must be admitted that in general their work is still far from efficient. A number of factors is responsible for this situation:

1. There are many employees who are neither fit nor fitted for their jobs. Some have secured positions through political influence, nepotism, sympathy, or favoritism, without regard to their qualifications for this type of service.

2. In some cases, there is no effective supervision.

3. Proper working tools, equipment, and supplies are not always provided.

4. Many of the workers have received little or no special training for their jobs, either before employment or during their period of service.

Of the above-mentioned deficiencies, the lack of special training is probably the most serious. Too often, the employees are assigned to positions with only a few directions as to "what" they are expected to accomplish. They may have to learn the "how" through the wasteful trial-and-error method. In some cases, new employees are assigned to work with others who have had some experience, in the capacity of apprentice or assistant. Such training is helpful if the experienced workers are efficient, but experience and efficiency are not synonymous. An experienced worker who uses poor methods and procedures may simply promote further inefficiency when he is asked to "train" the new worker.

That there is a need for training building-service employees has been recognized by many school executives. Furthermore, some very definite steps have been taken to provide this training. The work of the Minneapolis public schools stands out in this field. Over the past two decades, Minneapolis has maintained a janitor-engineering training school for the local employees in service. A separate school building (abandoned for other purposes) is used as the center. The school is operated on an eight-hour-day schedule, 5½ days a week, for 32 weeks each year. Each student has two hours training per week in engineering subjects and two hours per month in housekeeping subjects, or a total of ten hours per month. The training work is divided into 24 lessons and a month is devoted to each lesson, thus requiring three years for the completion of the course, this being done, of course, on a part-time extension-school basis. The program of each student is so arranged that he will have one classroom period of two hours, one laboratory period of two hours, and two field-work periods of two hours each per month on each lesson in engineering subjects, and one two-hour period each month in housekeeping subjects.

The value of this training school in Minneapolis was brought out in a report compiled by the business superintendent in March, 1937, showing savings resulting from the training of the school employees amounting to \$130,786.84 per year.

What Minneapolis has done in this area could be accomplished in other cities as well. There are large cities in the United States that today employ many hundreds of building-service employees who have had practically no training at all for this type of work. Pay rolls in some cases amount to hundreds of thousands of dollars annually. A nominal sum spent for training in service should result in the following economies and improvements:

1. Higher standards of service.

2. Possibly fewer employees would be needed because of increased efficiency of service production.

3. Less waste of materials used in custodial service.

4. Some greater efficiency in heating-plant operation with less waste of fuel.

5. Less waste of electricity, gas, and water.

6. Reduction in fire and accident hazards.

7. Slower deterioration of plant and equipment.

8. More minor repairs could be handled by operating staff.

9. Greater flexibility in shifting employees from one building to another.

10. A more professionalized spirit among the employees.

11. A greater respect for school-building service and workers on the part of the general lay public.

Short, intensive, three- to five-day courses for school custodian-engineers in service are being offered by a number of higher educational institutions. The rule has been to offer a short-term course annually during the month of June. The University of Minnesota is a pioneer in this field. While this institution has tried a two-week course, experience has indicated that the students (custodian-engineers) prefer the shorter period of one week. This is understandable at present. The men are not used to such intensive confinement. Furthermore, there are so many new ideas presented that a long program leads to some confusion. It is also possible that the men are physically tired in June following a school year of hard service and therefore unconsciously react unfavorably against a period of intensive training longer than a week.

Three-day courses are proving quite popular in a number of training centers. While the shorter period naturally restricts the scope of offerings, a high spirit of enthusiasm can be maintained over these few days. The men return to their jobs with some of this enthusiasm and with a new spirit for improving service. Even though the gains may appear limited, they very definitely are gains.

In Kansas, the State Board for Vocational Education has sponsored short-term courses for school custodian-engineers over a period of thirteen years. During the month of June, 1939, such courses were offered at three points in the state, each one for a five-day period, under the direction of Laurence Parker.

In Iowa, the State College at Ames, under the direction of L. W. Mahone, sponsors an intensive four-day course during June, with further one-day conferences at different centers throughout the state during the year. A monthly News Letter distributed among the building-service employees during the year contains useful information and helps to maintain a continued enthusiasm for improving the service.

In Missouri, the State Department of Public Schools, under the direction of Dr. N. E. Viles, sponsors a series of one-week courses at different centers throughout the state. Attendants who successfully complete six terms of work, including examination and inspection on the job, receive a state certificate and the title "Master Janitor."

Michigan State College at Lansing has offered an intensive three-day course each June over a period of several years, attracting more than 300 men from all over the state.

The A. & M. College of Stillwater, Okla.; the North Dakota Agricultural College at Fargo; the University of Nebraska; the State Teachers College at Greeley, Colo.; the Southern Illinois State Normal University at Carbondale, Ill.; Northwestern University at Evanston, Ill.; and Teachers College, Columbia University in New York City, are other institutions of higher learning that have recognized the value of short-term courses for school-building-service employees. Most of these institutions will continue these offerings during the summer of 1940.

These special short-term training courses usually consist of lectures, demonstrations, and round-table conferences. Some discussions are intended to be inspirational in nature, to develop "ego" and a sense of responsibility. Other subjects deal with various phases of building management, school housekeeping, engineering problems, repair of plant and equipment, and care of grounds. Methods of performing specific jobs are emphasized. The following

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topics indicate the variety of subjects presented at these short-term schools:

1. Responsibilities of school-building-service employees.
2. Dress and personal appearance.
3. Relations with teachers, pupils, and public.
4. Fire and accident prevention.
5. Selection of tools and equipment.
6. Selection and use of sanitary supplies.
7. Work planning and schedule making.
8. Inspection and rating of building service.
9. Floor treatment and preservation.
10. Floor cleaning and maintenance.
11. Dusting.
12. Cleaning furniture.
13. Cleaning glass.
14. Care of blackboards.
15. Cleaning toilet rooms.
16. Washing walls.
17. Care of window shades.
18. The relation of temperature, humidity, and ventilation to comfort.
19. Steam heating.
20. Heat-distribution systems.
21. Methods of firing.
22. Selecting fuel.
23. Temperature-control systems.
24. Ventilating.
25. Artificial lighting.
26. Painting and decorating.
27. Repairs to building hardware.
28. Repairing leaky faucets.
29. Roof repairs.
30. Electrical repairs.
31. Plumbing.
32. Furniture repairs.
33. Building and maintaining a lawn.
34. Care of trees and shrubs.
35. Selection of plants, shrubs, and trees.
36. Selection of soils and fertilizers.
37. Control of insects and fungus diseases.
38. Economies in electricity, gas, water.

This list of subjects is not complete, but it indicates the general broad coverage. Since an intensive three- to five-day course quite naturally is limited, it is impossible for a person to study all topics that might be included in a single session. A man may attend a number of successive annual courses without a serious duplication of subjects. As a matter of fact, the program of offerings usually is scheduled with this point in view.

It is common practice for the boards of education to permit employees to attend these short-term courses on school time with pay. Furthermore, tuition fees usually are paid by the boards. In a number of cases, the traveling, living, and incidental expenses of the employees attending these meetings also are paid by the employers. Since the benefits of this training accrue to the schools, it is logical that the costs should be met by the beneficiaries. The relatively small cost ought to prove a good investment.

A rather unique arrangement for a short-term training course for school custodian-engineers was carried out at Walton, N. Y., in August, 1939. The principals of a number of neighboring schools in Delaware County, under the leadership of Mr. Fox of Delhi, N. Y., arranged for a three-day school to be held in their own district for their own employees. A specialist in this field was brought in to serve as instructor for the group of 52 men in attendance. The cost of the school was pro rated among the cooperating school districts on the basis of the number of men attending. Another example of a local cooperative training program may be

mentioned: Over the past three years, the Nassau County (New York) School Administrators Association has sponsored a training program for the school-building-service employees in Nassau County. One Saturday morning per month, for ten months each year, the participating employees have met at a central location (Hempstead) where discussions, demonstrations, and conferences dealing with school building service have been held. Specialists in this field have been brought in as instructors. This periodic arrangement has a distinct advantage: Only one or two different subjects are brought up for broad discussion each meeting, so there is not the mental confusion that sometimes accompanies the intensive short-term courses. Ten half-day sessions throughout the year allow as much time as a single intensive five-day course.

A training program that calls for a two-hour class period per week during the academic school year provides a still broader offering, being the equivalent of at least an intensive two-week course. With a weekly instruction period, a single subject may be brought up each meeting (thus avoiding confusion) and the employees then have a week's time to study and try out the ideas presented. This piecemeal method of training may prove to be more effective than the less frequent intensive short-term courses. The suggestion is offered that if such weekly class periods are held at night on the employees' time, they be given equivalent time off in the form of additional holiday or vacation privileges with pay.

During recent years a number of handbooks have been written specifically for school-building-service employees, and further literature in this field is being prepared. The following literature is now available:

1. Barker, Howard, *Operation and Maintenance of the School Plant*. Published by Howard Barker, Board of Education, Salt Lake City, Utah.
2. Chellis, Herbert M., and Others, *Building Operation and Maintenance Manual*. Published by Frank Wiggins Trade School, 1846 South Olive Street, Los Angeles, Calif.
3. Heisler, Fred, *Arithmetic Applied to the Work of the School Custodian and Engineer*. Published by The College Bookstore, A. & M. College, Stillwater, Okla.
4. Heisler, Fred, *The Principles of Science Applied to the Problem of School Custodians and Engineers*. Published by The College Bookstore, A. & M. College, Stillwater, Okla.
5. Martin, Ray, *Handbook and Instructors Manual for Public School Janitor-Engineers*. Issued by Texas State Board for Vocational Education, Austin, Tex.
6. Parker, Laurence, *Job and Information Sheets in Housekeeping for Janitor-Engineers*. Published by Kansas State Teachers College, Pittsburg, Kans.
7. Reeves and Ganders, *School Building Management*. Published by Bureau of Publications, Teachers College, Columbia University, New York.
8. Engelhardt, N. L., Reeves, C. E., and Womrath, G. F., *Survey Data Book for Public School Janitorial-Engineering Service*. Published by Bureau of Publications, Teachers College, Columbia University, New York.



The Board of Education, Montebello, California, Unified School District.

Left to right: Bertram Jones, president; Mrs. Laura McCandless; Dr. C. C. Zellhofer; O. Howard Lucy; B. E. Coffman; Dr. Cecil D. Hardesty, acting superintendent of schools and secretary to the Board. The Montebello Unified School District in Los Angeles County, California, has increased its enrollment during the past four years at the rate of 13 per cent per year. The district now has 6,600 pupils enrolled from the kindergarten through grade twelve. The district has constructed three junior high schools within the past two years and has reorganized the system from a 3-4 to a 6-3-3 organization. In 1941 it is planned to change to a 6-4-2 organization.

How a Large School System Meets the Problem of Individual Differences

Dr. William H. Johnson¹

Meeting the problem of individual differences in a small town is one thing and quite another in a city as large as Chicago. Yet no school system can be regarded as successful unless adequate provision is made for individual differences. Teachers in the Chicago schools are making a concerted effort to apply individual techniques whenever and wherever possible throughout the entire system. Through unity of endeavor, the 85 per cent who will never see college are being helped according to their individual capacities to live a profitable, happy life. We believe today in preparing the child for success. It is imperative, therefore, that we recognize and prepare for individual differences. As with all things, *administrative* provision for individual differences must be made as early as possible.

Today, tots in kindergarten are given tests to determine whether or not they have reached the mental maturation which will insure reading readiness in first grade. Likewise, all children entering first grade are tested. Those who fail to show reading readiness are given prereading or, as it is more commonly known, Reading IC. Such procedure is our first large-scale attempt to fit the work to the child instead of trying to fit the child to the work. A tabulation of the reading readiness of children entering the first grade of the Chicago public schools in September, 1938, showed that 16.3 per cent of the children were *definitely* not ready to read, and an additional 12.8 per cent were *probably* not ready. These figures brought home the fact that the duty of every school was to study the needs of its first-grade population. Experts agree that a pupil should attain a mental age of at least six years regardless of chronological age, in order to learn to read. Undesirable results have followed when children who have not reached the necessary levels of physical, mental, emotional, social, and language growth, have been introduced to formal reading. Many children suffered the unhappiness of failure before they were given a fair chance to experience success. As a result, they developed a set against reading which tended to increase rather than diminish as they continued through school.

Teachers of prereading groups plan many group activities so that every child has many opportunities to serve on committees, or act as leader or committee chairman. The children learn to cooperate with each other and acquire habits of dependability and self-reliance. Prereading activities improve the child's ability to concentrate upon what he is doing, and teach

him to complete what he has undertaken. Because the children are working and playing games at their own levels, they sense success, and take great pride in their accomplishments. An interest in school, plus a desire to read, are the natural outcomes of the prereading program in the schools of our city. For those who have attained reading readiness, the Chicago plan of teaching beginning reading, making use of the nonoral technique, is another sincere attempt on the part of administrators to take the child where they find him.

The kindergarten-primary cycle, with its attendant teacher rotation, is interesting because it recognizes the fact that, given sufficient time, a teacher may come to know the variants of individual capacity among her charges. Teachers, therefore, keep their classes from kindergarten through the second grade. Progressing with the same teacher gives the child a feeling of security, and a chance to make adequate adjustment to the work of the first two grades. The plan is proving successful because it is built around the individual needs, abilities, and interests of the pupils.

Two Tracks in Grades

We who accept the American way of life believe that the public schools should provide for the steady educational progress of every child. To meet the needs of those who learn rapidly, the *Two-Track Plan* was set up in the Chicago elementary schools. Under this plan, rapid learners are put into separate classes in the first grade. The accelerated groups then move forward at their own rate. It is possible for them to complete the work of seven grades in six years. Children may join this accelerated group or drop out as determined by their needs and abilities. The *Two-Track Plan* allows each pupil to progress at his own learning rate. Rapid learners pass through the grades without losing whole sections of their work which oftentimes is the case when pupils are double promoted. It is now possible to present all work units to rapid learners under normal conditions with ample opportunity to make use of such teaching aids as excursions, pictures, and libraries. Bright pupils assimilate the fundamentals of a lesson quickly, and are stimulated to work up to their capacities only when they are given additional material vital to their separate interests. This is more readily possible when classes are grouped under the *Two-Track Plan*.

The children in the normal group of this plan also benefit from this organization for they are given increased opportunity for the development of their individual abilities. There are more opportunities for them

to assume leadership in their own group. Both classifications within the *Two-Track Plan* become better adjusted because more complete provision may be made for their balanced development. The plan presents a daily challenge to every child's interests and capacities in all school subjects. The plan is definite — yet very flexible. By the end of the 1B semester there have been numerous opportunities for the teacher to study each individual pupil as far as health, schoolwork, and interests are concerned. It is at this point that the accelerated group is selected. In each of the six succeeding semesters, pupils of the accelerated group cover an additional three weeks' work, so that at the end of 3A, this group will have covered the work of 4B and will be ready for promotion to 4A. Constant shifts and readjustments are made to suit the needs of the child.

At the beginning of the fourth year, an accelerated group is again selected. All pupils who have finished $3\frac{1}{2}$ years of work are considered, not only those rapid learners who completed the first $3\frac{1}{2}$ years in 3 years. There is an opportunity to gain a half year during the interval between grades 4A and 7A inclusive. This second accelerated group will likewise cover the work of these grades in three years instead of the normal $3\frac{1}{2}$. All pupils are expected to spend an entire year in eighth grade. Above-average pupils may thus complete the eight grades of the elementary school in seven years.

Pupil Guidance in Grades

In 1937, a *Three-Point Program* became part of the elementary-school curriculum. The three points emphasized were: (1) improvement in reading which was part of the guidance and adjustment service, (2) a cumulative record system and, (3) the socialization program. The plan for improvement in reading and the cumulative record system were instituted to meet the needs of the child. The socialization program was put under operation in order that we might minister to the whole child and add to his social growth.

Every Chicago teacher is, in effect, a personnel worker. The central adjustment service in each school is an indispensable part of the Chicago plan of pupil guidance. Working in close touch with the classroom teacher and the Child Study Department, the adjustment teacher seeks to aid in discovering individual differences. It is her duty to administer intelligence tests in order to estimate ability, achievement tests to measure educational progress, and diagnostic tests to determine particular abilities. The Adjustment Office sees to it that

¹Superintendent, Chicago Public Schools.

a profile of the educational status of each child is made to guide the school in programming the child, and to aid in setting up a budget of work suitable to his individual needs.

If there is to be continuous progress in handling individual differences, records of tests and individual difficulties must be available throughout the entire school life of the child — and even after. An individual folder has been set up for each child containing records of his abilities, his achievements, his health, his social traits, and much other valuable information. The folder accompanies the pupil when he transfers to another elementary school, or enters high school.

Classes in the improvement of reading are another individualized service which the Chicago schools offer to those with reading difficulties. A pupil who is handicapped by reading difficulties is likely to lose interest in other subjects since knowledge of any subject depends in no small degree upon his ability to read. No single set of books or lessons can give each child the experiences he needs to correct his particular reading disability. For this reason, units of reading material in booklet form are given to the pupils. These units have been carefully graded as to the degree of difficulty and as to the particular reading deficiency which they are designed to overcome. Test questions and directions are attached to each of the booklets. A work record card upon which the teacher records the units needed, is made for each child. These needs are discussed with the child who watches the record of his own improvement. Pupils work with great interest when they know what their difficulties are and how they may be overcome.

In addition to being individualized, "the improvement in reading" program is *pupil managed*. Children act as file clerks, messengers, testers, checkers, and recorders. Each pupil keeps his own records of completed units. In this way, every child experiences success as he progresses at his own learning rate. The teacher acts in the capacity of guide, giving individual help to pupils who need her special attention. The pupil-managed reading units foster reliability, courtesy, honesty, and self-guidance. Pupils learn how to cooperate with each other. Their abilities are challenged, their interests aroused, and their needs provided for. Research in the field of reading shows that children today are not only reading better, but that they are reading from two to six times as much as did children of the same age twenty years ago.

New report cards are being used in all elementary grades including the kindergarten. These cards again reflect what Chicago is doing to meet the problem of individual differences. Pupils are graded upon the effort they make, the results they attain in relationship to their abilities, in addition to recognition of outstanding work in any subject. They are also checked for character traits necessary to good citizenship. No child who makes an effort is con-

sidered a failure because he cannot compete with brighter pupils. The pupil is constantly competing with himself. The new report card is the result of an analysis of about 65 report cards used in public and private schools throughout the country. It represents the accepted practices of progressive schools, and was planned to meet the needs which are peculiar to Chicago.

Home Mechanics in Grades

The *Home-Mechanics Laboratory* of grades six, seven, and eight lends itself admirably to the Chicago plan by offering many opportunities to meet individual needs. The Home-Mechanics Laboratory is the result of several years of study and experimentation to find a handicraft course that would make a real educational contribution both to the individual child and the modern home. The course is flexible and will be modified constantly to meet the changing school and home needs. The Home-Mechanics Laboratory has four specific objectives. It aims to offer consumer education about the products of industry; to develop handyman abilities with common tools and construction materials; to promote the use of handicraft for leisure time activities in the home; and to contribute to the personality of the child and further the objectives of general education.

The individualized techniques which are being used in every Chicago school, carry over to the special schools for the physically handicapped, the retarded, and the truant. In the last analysis the students in these classifications are entitled to as much individual attention as we can give them. Chicago was among the first cities in the United States to attempt special education for physically handicapped children. Following the world war, physiotherapy became an accepted technique in the rehabilitation of crippled children. Our schools employ 22 full-time physiotherapists to give corrective treatments, supervise the general health and physical condition of the pupils, arrange their attendance at clinics, and function as medical social workers. Individualized instruction is the only answer in the education of the crippled, the hard of hearing, and the blind.

Educating the retarded pupil presents a problem which cannot be met adequately in the regular classroom. Chicago is endeavoring to solve the problem through ungraded classes in the elementary schools, where an effort is being made to educate each child to the maximum of his ability, taking into consideration his limitations, his interests, and his special needs.

The conclusion has been reached, that after retarded children have attained the adolescent age, training in manual activities of a type that seek to discover latent abilities for possible vocational training are desirable. Training in manual skills is essential to enable these young people to cope with the industrial world. Therefore, there have been developed what have been termed "*lower vocational centers*" in 28 schools. There are 91 classes included in

these centers — 58 for boys, and 33 for girls. This arrangement makes possible a departmentalization which gives each child a sense of maturity since he spends at least 1½ hours of each school day in the shop or household-arts room with one teacher. The remainder of the day is spent with other teachers in academic subjects which are closely correlated with what the pupil has had in shop.

Chicago schools go further in their desire to help unadjusted pupils to find their proper places in our highly industrialized society. In 1937, the board of education officially changed the prevocational schools to "*vocational centers*." These vocational centers accept all types of maladjusted and unadjusted school children upon the recommendation of principals and the Child Study Department. The teaching is highly individualized and is based entirely upon the individual pupil's interests, needs, and abilities. Every effort is made to reinterest the pupil in schoolwork through various laboratories, shops, cooking and sewing rooms, and other facilities not available in the regular elementary schools.

This year, the vocational centers have adopted a new philosophy for overage, retarded boys and girls. The entire curriculum has been revised in order to fit it more definitely to the individual needs of these children. The curriculum has, therefore, taken on new meaning for unadjusted pupils. The new program in the vocational centers concerns itself with modern industrial conditions. It aims to prepare each student for a profitable and happy life.

Vocational Education Activities

All work in vocational centers is fitted to the intellectual level of the pupils. The young people are given many vocational experiences. They become acquainted with many industrial processes, and handle many different kinds of materials.

The unit print shop in these centers has been changed into the Graphic Arts Laboratory. Zinc etching, papermaking, book-binding, and block cutting are now offered in addition to the regular work in printing. The Arts Laboratory takes the place of the old-type mechanical-drawing course. Many new types of pictorial presentations have been introduced such as show-card writing, map making, graphs, poster work, photography, and blueprinting. The course in cooking has been supplanted by the Food and Health Laboratory. In this new-type food class, food analysis, adulteration, substitution, intelligent buying, home nursing, and general health work are all studied. The old course in sewing has been replaced by the Clothing and Housing Laboratory. New areas such as textiles, dress designing and fabrication, interior decoration, and social relations are part of the plan.

Regular ninth-grade classes have supplemented the old extended 8A classes and, whenever possible, are made to compare in quality to regular high-school work.

In addition, Chicago has five *vocational*

schools: The Dunbar, Hancock, Jungman, Richards, and Sheldon. In these schools, every class functions as a Smith-Hughes class. The Jungman, Sheldon, and Hancock are for boys only, while the Dunbar and Richards are for girls. The purpose of the five vocational schools is to prepare boys and girls for profitable employment in the various occupations. They are definitely trade schools.

In the vocational schools for girls, training is given in millinery, dressmaking, beauty culture, cafeteria and restaurant management, home nursing, and commercial art.

In the three vocational schools for boys, students receive training in carpentry and cabinetmaking, sheet metal and machine shop, electricity, commercial art, mechanical drawing, printing, auto shop, and tailoring.

The five vocational schools at present have 71 teachers, and 1,700 pupils.

A new system of arranging transfers of pupils from home schools to vocational schools was put into operation last year. The pupil now applies to the nearest vocational school in advance of his actual enrollment where, as a visitor, he has a chance to talk things over before he determines which vocational interests he wishes to follow.

In the field of secondary education much of interest to the individual student may be found in the four technical high schools of this city—Crane, Lane, and Tilden for boys; Flower, for girls. Washburne Trade School offers opportunities for further specialization. The Jones Commercial High School is especially for those who desire to enter the commercial world. Chicago's crowning achievement along the line of vocational guidance will be the new Chicago Vocational High School which is now in the process of construction. The plant will have a central administration building for offices, classrooms, and laboratories. Near the central building there will be smaller two-story shop buildings that will be of a factory-type construction. The school will be well equipped to do advance work, and will equal in quality the work done in the best vocational schools in the country. Students will get exploratory work in the general high schools before they enter the new vocational school.

The truant, today, is the object of individual study rather than the recipient of punishment. Chicago maintains two special day schools besides several special classes for truant cases. The Montefiore School, by using modern case-study techniques, succeeds in helping the individual boy become a worth-while member of the school family. The program at both the Montefiore and the Moseley schools contains a large amount of remedial work, and is directed at the socialization of the pupil and his individual adjustment to his world. Extra-curricular activities based upon the interests of the boys have proved a great help. Extreme cases of maladjustment which reach the Parental School are likewise

helped by methods of individualized re-education.

Individual Attention in High Schools

In the forty *high schools* of our city, we see many evidences of administrative provisions for individual differences. Instead of expecting all high-school students to follow the same pattern, Chicago encourages those worth-while differences which lead to desirable development. By recognizing each individual as unique, the techniques now in use enable the student to realize the maximum fulfillment of his potentialities.

The part that the Adjustment Service plays in the high school cannot be ignored. As in the elementary school, it is only through student personnel work that any individualization of education takes place. Essentially, the responsibility of individual instruction falls upon the classroom teacher. The Adjustment Teacher is the specialist on whom the class teacher feels free to call for a diagnosis of symptoms of maladjustment. The Adjustment Service, as it is conceived in the Chicago school system, acts as a guide to the classroom teacher. It offers suggestions to the gifted students as well as to those having trouble adjusting themselves to the group. The *Counseling Service* helps gifted students to direct their aptitudes and interests into profitable and enjoyable channels.

One of the greatest opportunities offered our students today is guidance. Guidance of a vocational nature recognizes first of all that people differ. It is in reality a system of vocational enlightenment. It is concerned with specific interests and talents. In the plan of vocational guidance in Chicago, every student failure is used as a guide to success. The cause of the failure is located, and the student is helped on his way. The vocational setup aims to help each pupil to determine the job for which he is best fitted. Tests of a vocational nature are administered in every high school—mechanical aptitude, performance tests, and others. The results of such tests, although enlightening are always checked against many other kinds of information about the student. Personal interviews are an important part of this procedure. They help to form a more complete picture of the "whole" student. The vocational school is Chicago's answer to those students seeking an opportunity for training in vocational or industrial fields. There the student may follow his interests in his chosen field, receiving at the same time a broad cultural background.

The *Conference Period* which is a definite part of every high-school teacher's program cannot be ignored in any consideration of provision for individual differences. The significance of the conference period in a program of individual guidance is evident. A special room is set aside where teachers may interview students, away from the activity of the classroom. Students meet teachers in the conference room by appointment. The strained relationship

which often exists between teacher and pupil relaxes in the quiet of the personal interview. At all times self-guidance is encouraged and developed. Problems involving choice of subjects and other matters of importance to high-school students receive consideration. Each of the four years of high school has a special class adviser whose job it is to act as contact with the homes. A special vocational adviser is at hand at all times to offer seniors suggestions on vocational possibilities. Records of all interviews are kept, and added to those already in the cumulative folder of each student.

Cumulative Records Help Students

Cumulative records in the high school have proved extremely helpful in individualizing instruction. Time has shown that anecdotal records and behavior description forms are two of the most revealing types of records a counselor can keep. Such records are kept for all—not just for those whose behavior has been questionable. No single act of behavior is ever interpreted by itself. When records are kept over a period of years, a pattern of the personality of the student emerges. Any such accumulation of detail interpreted effectively and passed from teacher to teacher gives a pretty accurate candid-camera shot of the student. Every teacher has access to the records of all students in either her home room or her classes. It is her duty to interpret them and use them daily to help her pupils. As records are kept up to date they tend to become more accurate.

In our high schools every teacher helps the students under her guidance to evaluate their own activities in the light of their own capacities. As a result, the number of students leaving school has dropped. With increased pupil success Chicago has noted few social and vocational failures. There are fewer misfits because each student is allowed to exercise intelligent self-direction.

The *Home-Arts Laboratory* is another attempt on the part of those responsible for the Chicago schools to administer to the individual differences which may be found in any high-school population. In order to meet changing needs in our modern society, courses in home economics must offer realistic training which answers the vital problems of living as these problems center around personal and family life. The high schools of Chicago are seeking to modify home-economics education and offer a sequence of training which will afford opportunity to meet modern trends.

Equally as important, is the *Industrial-Arts Laboratory*. At present, there are 75 Industrial-Arts Laboratories in the 40 high schools of the city. The level of instruction is adjusted to fit the needs of those who have had the new course in Home Mechanics in grades six, seven, and eight. In the Industrial-Arts Laboratory, over 80 per cent of the student's time is spent in actual manipulative work. The course provides exploratory experiences in modern industry.

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Purchasing School Supplies

John A. Jimerson¹

The mounting costs of government, and the decrease in the average taxpayer's income, during the past few years, particularly in the drouth-stricken areas, have caused a close scrutiny of all public expenditures. While income from production and services is again rising, the increase has not been sufficient to prevent the curtailment of funds for many public enterprises.

The disposition to scrutinize more closely expenditures for public purposes, particularly for public education, is evident. Especially where the expenditures come from revenue raised by taxation, there is likely to be a tendency toward drastic reductions. Since education is supported so largely from the proceeds of direct property taxes, the schools are especially affected by the demand for reductions of expenses.

School-board members are accustomed to the large proportion of expenditures which go for personal services, and they are inclined to trust to a considerable degree the judgment of the school executives for guidance in this field. On the other hand, when orders are given for supplies, the board member can see definitely the returns for every dollar spent, and he is accordingly inclined to scrutinize most closely all expenditures. Supplies must be constantly replaced. The board member is likely to believe that fewer supplies might be furnished, and that a product at lower cost might well replace the better article.

In purchasing school supplies, methods are used which are not in accord with general business practices. There is little uniformity as regards the official who does the purchasing. In many of the smaller schools, much of the buying is done by the superintendent, sometimes under the supervision of a supplies committee; and in some schools it is done by the secretary of the board of education. Too often, the school custodian is allowed to purchase such supplies as he needs with little check or guidance. Each of these ways is subject to criticism. Often in small towns the superintendent is inexperienced and untrained in business management, while the secretary of the board is not familiar with the educational needs of the school. Janitors have ordinarily little training or experience which would justify their being assigned so great a responsibility as buying their supplies.

Very often the local merchant is given the orders, without regard to quality, or price of products. In other cases, some such an arrangement as cost, plus a specified percentage of the total amount is made. The latter plan places a premium on raising, rather than lowering, the cost to the consumer.

While many schools employ the better practice of submitting orders for consider-

able amounts to competitive bidding, even this practice has its disadvantages. Without specifications, there is wide divergence in quality. Typing paper may vary from a good quality of bond paper to cheap news print. In prices there are like variations. Liquid soap on competitive bidding, for what was supposed to be the same quality, has been known to vary from 68 cents to \$1.80 per gallon. On successive quotations, a single firm has changed its bids as much as 100 to 200 per cent for presumably identical articles.

The problem of purchasing is further complicated by the fact that the salesmen do not themselves know their own goods. Papers have been standardized into classes, but many salesmen do not know what grades of paper their firms carry. They have a conviction that their houses would handle only "quality" products, but the degree of quality seems to mean nothing to them. One janitor-supplies salesman, when asked by the writer to give the phenol coefficient of a disinfectant listed in his catalog, admitted that he did not know the meaning of the term. Another was unable to distinguish between a disinfectant and a deodorant.

Various methods of purchase have been proposed which are calculated to reduce in some measure the difficulties of purchasing supplies. Some have recommended that the purchaser should order only from established and reliable firms. But many persons to whom the purchase of supplies has been delegated are inexperienced in buying and are not acquainted with the standing of the firms dealing in school products. They must gain their experience at the cost of the school districts. Furthermore, buying from only one firm subjects the purchaser to the charge of favoritism, and often the impression is fostered by competing firms that there is collusion between the purchasing agent and the salesman to the financial advantage of each.

There are those who argue that you get "about what you pay for." They argue you to buy only "quality merchandise." This argument is often used to induce the purchaser to pay prices which are not warranted by the actual values of the products. Quality is hard to define in relation to a specific product for a specific use. No company is likely to admit that its product lacks quality. Furthermore, most companies handle goods of different grades, all of which they insist are quality merchandise, nevertheless, intended to sell at different price levels. Obviously the first quality should not be brought into competition with a competitor's second quality merchandise. Thus, without specifications, the price paid is no guarantee of either grade or quality.

An emphasis on quality, without ade-

quate definition on the basis of specifications, may result in the purchase of a higher quality than is needed for a specific use. Linn² states that the standard set for supplies should not exceed in quality the actual needs of the users.

It is evident that there is a deplorable lack of sound business procedure in the purchase of school supplies. A study of the literature relating to school supply purchasing reveals much sound information which should be of value to purchasing agents. A study of the problems connected with school supply purchasing indicates that the major problems of promoting economical business procedure in school purchasing may well be divided into the following parts:

1. Designation of the official responsible for school purchasing.
2. Standardization of supplies.
3. Storing and distributing of supplies.
4. Method of purchasing.
5. Methods of testing, or certification, of supplies.

Designation of Responsible Official

It is recognized that the official charged with the responsibility for the purchase of school supplies has an opportunity for effecting large savings in the supply budget. It is not astonishing, then, that considerable space in professional literature is devoted to the problem of selecting the official who is best qualified for this responsible duty. Available statistics reveal that the superintendent is most often designated as the purchasing officer. According to a report of the National Association of Public-School Business Officials,³ of 100 cities studied, the superintendent of schools was the authorized purchasing agent in 47 cities. In 10 districts, the business manager did the purchasing. Conrad states, "The superintendent of schools, or his duly authorized representative, should be responsible for the school supply management."⁴

Where the business official is the purchasing officer, he should not concern himself with the original selection of supplies. He should, however, call attention to items of excessive cost where cheaper materials would supply the need. Grill⁵ believes that the responsibility of the purchasing agent is not to determine what should be bought, but his responsibility is to purchase supplies requisitioned in the regular manner by the various agencies who should determine the quality, amount, and kind.

¹Linn, Henry H., *Practical School Economics*, Chapter V.

²A report of the committee of the National Association of Public-School Business Officials, "School Supplies, Purchase and Distribution," *SCHOOL BOARD JOURNAL*, Vol. 81, p. 106, July, 1930.

³Conrad, C. W., "School Supply Management," *School Executive*, Vol. 50, pp. 416, 17, May, 1931.

⁴Grill, G. W., "Centralized Purchasing of School Supplies," *School Executive*, Vol. 49, pp. 4-7, September, 1929.

⁵Executive Dean, Peru State Teachers' College, Peru, Nebr.

Standardization of Supplies

Standardization of supplies and method of purchasing usually results in considerable savings. The reduction of the number of items by standardization reduces the cost to the purchaser by giving him the benefit of quantity prices and reduces freight rates. O'Dell⁶ reports that in the Miami School, in Oklahoma City, standardization resulted in reducing the number of items used 47.3 per cent, and in reducing the cost per pupil 50.5 per cent. According to a bulletin of the National Association of Public School Business Officials,⁷ 54.5 per cent of 317 schools in the United States and Canada, included in the study, reported the use of standard lists of supplies. According to the same report, 148 of the 317 schools developed standards of quality. Linn⁸ states that simplification through the reduction in the total number of brands, qualities, sizes, and designs of materials would reduce manufacturing costs by reducing the number of items and increasing the quantity of standardized items.

Three methods of standardization are suggested. Merchandise may be standardized on the basis of brand names or "equal"; by purchasing from selected companies of good repute; and by the use of specifications. The unqualified use of brand names as a means of standardization is undesirable in that it tends to eliminate competition, since it is difficult to determine products of "equal" grade. Competition also is reduced when goods are purchased from only a few selected companies. The use of specifications as a means of standardization, in spite of recognized difficulties, is generally conceded the best plan.

Storing and Distributing Supplies

One source of waste in the purchase of school supplies has resulted from an attempt to effect savings on quantity orders. It has often resulted in overstocking supply rooms. Interest on capital investment and depreciation have resulted in losses equal to or greater than the savings resulting from quantity discounts. Eyman⁹ recommends annual purchases under carefully controlled specifications for bidding conditions. Wynkoop¹⁰ states that annual purchasing of standard supplies is the most economical. Conrad believes that each school building should have a storeroom large enough to carry supplies for one year. Kelty states, "Buy what is needed and no more. Attempting to buy bargains often results in over-supply."¹¹

⁶O'Dell, Clyde H., "School Supplies, Standards of Use and Cost," published by Colorado State Teachers College, Greeley, 1935.

⁷"School Supplies, Selection, Storage in Small Cities," and "Use of Specifications in the Purchasing of School Supplies and Equipment," Hibbert and others, National Association of Public School Business Officials, Bulletin No. 6, p. 16, Pittsburgh, Pa.

⁸*Op. cit.*

⁹Eyman, R. M., "Co-operative Plan for Selecting and Purchasing School Supplies," *SCHOOL BOARD JOURNAL*, Vol. 91, pp. 39, 40, August, 1935.

¹⁰Wynkoop, J. B., "Purchasing and Distributing School Supplies," *School Executive*, Vol. 51, pp. 402, 403, May, 1932.

¹¹Kelty, C. V., "Buying School Supplies," *SCHOOL BOARD JOURNAL*, Vol. 81, pp. 43, 44, July, 1930.

Provisions must be made for the storage of such supplies as may be in the possession of the school at any time. Storage in central warehouses seems to be the general practice. An investigation made by the National Association of Public School Business Officials¹² revealed that 80 out of 100 of the cities studied maintained a central storehouse for receiving and delivering school supplies. Kline¹³ states that supplies should be delivered to central supply houses rather than directly to the schools.

Essential to any system of storing and distributing supplies is an adequate system of records. Record systems should include a plan for filing catalogs, price lists, direct price quotations, and correspondence concerning supplies. Provisions should be made for a constant inventory, or for one which may be arrived at periodically. Provision should be made for recording all materials stored in the supply room and for the requisitioning of materials. The purchasing officer should be able to trace by the records any item from the time it was requisitioned by the teacher until it was consumed in school use. In the larger schools a full-time supply clerk is considered desirable.

Method of Purchasing

There is general agreement among authorities that school supplies should be purchased on competitive bids, based on specifications sufficiently rigid as to eliminate inferior merchandise, but general enough to insure fair competition among competing products of comparable quality. Purchasing on the basis of competitive bids is re-

cognized as sound practice by most large industrial firms. It is required in many government departments. No item of equipment, purchased for a school with the aid of a PWA grant, may be purchased except under competitive bidding. It is required by law in many states. Reeves¹⁴ states that the standards of quality for educational materials should be written in the form of specifications. The specifications enable both the purchaser and the seller to know definitely the qualities that are demanded of the supplies.

Methods of Testing, or Certification, of Supplies

Many administrators in small schools have failed to use even the small number of specifications which have been available, partly because of the difficulties of testing. However, the following methods are recommended as of value to the consumer in his attempts to see that the product purchased approximates in quality the standards set by the specifications upon which the order was based:

1. He may avail himself of the certification plan of the National Bureau of Standards.¹⁵
2. He may require the vendor to make a sworn statement that the product sold meets the specifications sent with the purchase order.
3. Samples of the goods delivered may be submitted to governmental or commercial agencies for test.
4. With such facilities as are available, the purchaser may test the product himself.

¹⁴Reeves, Stanley Newman, "Tests of Quality for School Equipment and Supplies," Doctor's Thesis, George Peabody College for Teachers, Nashville, Tenn., 1934.

¹⁵Division of Codes and Specifications, National Bureau of Standards, Department of Commerce, Washington, D. C., Letter Circular LC-559, July 6, 1939.

Techniques in Supervision for the Small High School

Charles Wells, Jr.¹

(Concluded from May Issue)

Now that we have surveyed certain techniques useful in studying and improving the teacher-learning situation, we must concern ourselves with the evaluation of the methods and outcomes of supervision. Too often supervision has been attempted with no other criterion for the evaluation of its results than the supervisor's own opinion. If supervision is to be scientific, every accurate method of evaluation must be used.

Two criteria are available: the change in the pupils, and the change in the teacher or his teaching. The changes in the pupils can be measured rather accurately from a scholastic standpoint by means of standardized achievement tests. On the other hand, the improvement in pupils' attitudes, as re-

flected by their conduct and by school morale, must be judged by the superintendent, the teachers, and the patrons of the school. Naturally the change in the pupils' accomplishments can be measured objectively, while the other factors must be measured subjectively.

The changes in the teacher and his teaching as a result of supervision may, of course, be measured indirectly by the achievement tests just mentioned. But most of the changes must be observed in the teacher's attitude toward supervision, in his methods of teaching, and the time which he devotes to self-improvement. The important criticism which can be made of these measures is the fact that, like the observation of changes in pupils' attitudes, the procedures are subjective. The development of a completely objective method of

¹Instructor in Akron High School, Akron, Ind.

evaluating the outcomes of supervision will be welcomed by every supervisor.

Outlining the Supervisory Program

Now that we have mentioned the techniques suitable for the small high school, it is necessary to outline the program of supervision for Smalltown High School.

The following tables and outlines show how the superintendent of the Smalltown High School may budget his time, how the objectives and technique plans may be worked out, and what may be expected as outcomes.

TABLE I. Daily Distribution of the Superintendent's Time

School Week			
	Administration	Supervision	Instruction
1 8:30 9:25	<u>Office hour.</u>	Visitation or Conferences	
2 9:30 10:25		Visitation or Conferences	<u>Science 8, X</u>
3 10:30 11:25		Visitation or Conferences	<u>Physics 12</u>
Noon Intermission			
4 12:30 1:25		Visitation or Conferences	<u>Science 8, X</u>
5 1:30 2:25	<u>Office hour.</u>	<u>Visitation or Conferences</u>	
6 2:30 3:25	<u>Office hour.</u>	<u>Visitation or Conferences</u>	
Optional: 3:30 4:25	<u>Office hour.</u>	<u>Teachers' meeting</u> <u>Group conferences</u>	

The activity underlined is the one to which the period will usually be devoted.

The office hours should include keeping records, supervising attendance, interviewing pupils, patrons, and conferring with teachers, dealing with school correspondence, and other routine office work.

Arrangements can be made so that visitation and conference work can be carried on during any period of the day, with teachers' meetings and group, as well as individual, conferences deferred to the hour after school.

The classes in Science 8 may be met, when necessary, as a combination of Sections X and Y at either the second or the fourth period. The class in physics may be directed to work independently, or it may be dismissed upon occasion.

Saturday:			
8:00 10:00	Inspection of school—janitor—repairs, etc.		Prepare lesson sheets, plans, and tests.
10:00 11:30		Plan work for coming week	

The work for Saturday morning includes supervision of the work of the janitor, completion of any reports not finished during the week, and preparation of supervisory and instructional materials for use during the coming week.

TABLE II. Outline of Objectives and Techniques for the High School and the Junior High School

A. LONG-TERM OBJECTIVES (To be realized over a period of years—revised as need arises):

1. Improvement of Supervisory Program:

- Classroom visitation and personal conferences.
- Improvement of the testing program:
 - Intelligence tests.
 - Achievement tests.
 - Diagnostic tests.
 - Prognostic tests.

2. Curriculum Planning:

- New commercial curriculum.
- New science curriculum.

c) New junior-high curriculum.

- Better integration and articulation with high-school curriculum.
- Development of survey courses.
- Guidance based upon intelligence and prognostic tests.

3. Guidance:

- Planning of an educational and vocational guidance program based upon intelligence and prognostic tests, interests, and attitudes.

4. Other:

- Improvement of the extracurricular program.
- Development of a home-room system.
- Development of "new-type" diploma, and of a differentiated diploma system.
- Development of a new type of grading distribution based upon I.Q. curve for each class.

B. IMMEDIATE OBJECTIVES (To be realized, if possible, during this school year—revised as need arises):

1. General Objectives:

- Improvement of the directed study technique in the lengthened period:

The lengthened period has made it difficult for teachers to adjust their methods and for the pupils to adjust their study habits to the new order.

Aim: To develop a technique for the best use of the lengthened period and of the study hour.

Technique: Teachers' meetings: general teachers' meetings for consideration of directed study; conferences with groups and individuals:

- Introductory meetings to define the problem.
- Definitely outlined studies based upon study outlines worked out by the teachers.
- Texts and periodical references.
- Individual and group conferences to aid in applying techniques to individual classes.

- Improvement of the extracurricular program and the development of the home-room system:

The extracurricular program has almost broken down under its own weight, for every teacher is harried by more clubs and duties than is necessary. The home-room system, with the period uses part of the time for extracurricular activities, is a complement to the new extracurricular program.

Aim: To develop a suitable extracurricular program and to develop a home-room system to articulate with it.

Technique: Special committees to survey literature and develop extracurricular and home-room systems. Recommendation to be submitted to general faculty meeting for consideration.

2. Specific Supervisory Objectives:

- Classroom visitation and personal conferences:

There is an evident need for an improvement of the visitation and conference program.

Aim: To improve the teacher-learning situation, with especial attention to new teachers, by means of visitation and conference.

Technique: Long and continued visits or short and infrequent visits according to needs and attitudes of teachers:

- Long visits confined largely to classes where special improvement and curricular adjustment is desired.
- Short visits for the purpose of purely inspectional and checking work.
- Personal conference following all visits.

- Induction of new teachers:

Aim: To improve the teacher-learning situation by aiding the orientation of the new teacher.

Technique: Personal conferences with new teachers:

- Aid in understanding school and duties.
- Encouragement of professional spirit and professional growth.
- Orientation in the community.

- Development of new curriculum in commercial department:

Program at present is not well integrated and does not give a sufficiently accurate and complete course of training.

Aim: To organize an integrated three- or four-year program of commercial training, with special attention to vocational needs:

Technique: Personal and group conferences with the teachers concerned:

- Analysis of community needs in business training.
- Analysis of interests and aptitudes of the students.
- Articulation of related courses in other departments.

- Development of testing program:

Need of intelligence (and achievement) testing for both supervisory and instructional programs is evident.

Aim: To test the whole school, grades 7 to 12, with intelligence and achievement tests.

Techniques:

- Testing with Otis Mental Ability Tests and some other intelligence test if possible.
- Testing with various standardized achievement tests.

3. Summary of Techniques to be Used:

- Teachers' meetings:

- General: directed study, extracurricular and home-room programs.
- Group: extracurricular and home-room programs; new commercial curriculum, with commerce staff.

- Visitation and conference:

- Visitation of new teachers; teachers of courses in which curricular improvement is desired; general routine visitation.
- Individual conferences: supervised study; extracurricular program; new teachers; commerce staff.

- Testing program:

- Intelligence tests, grades 7 to 12.
- Achievement tests, grades 7 to 12.

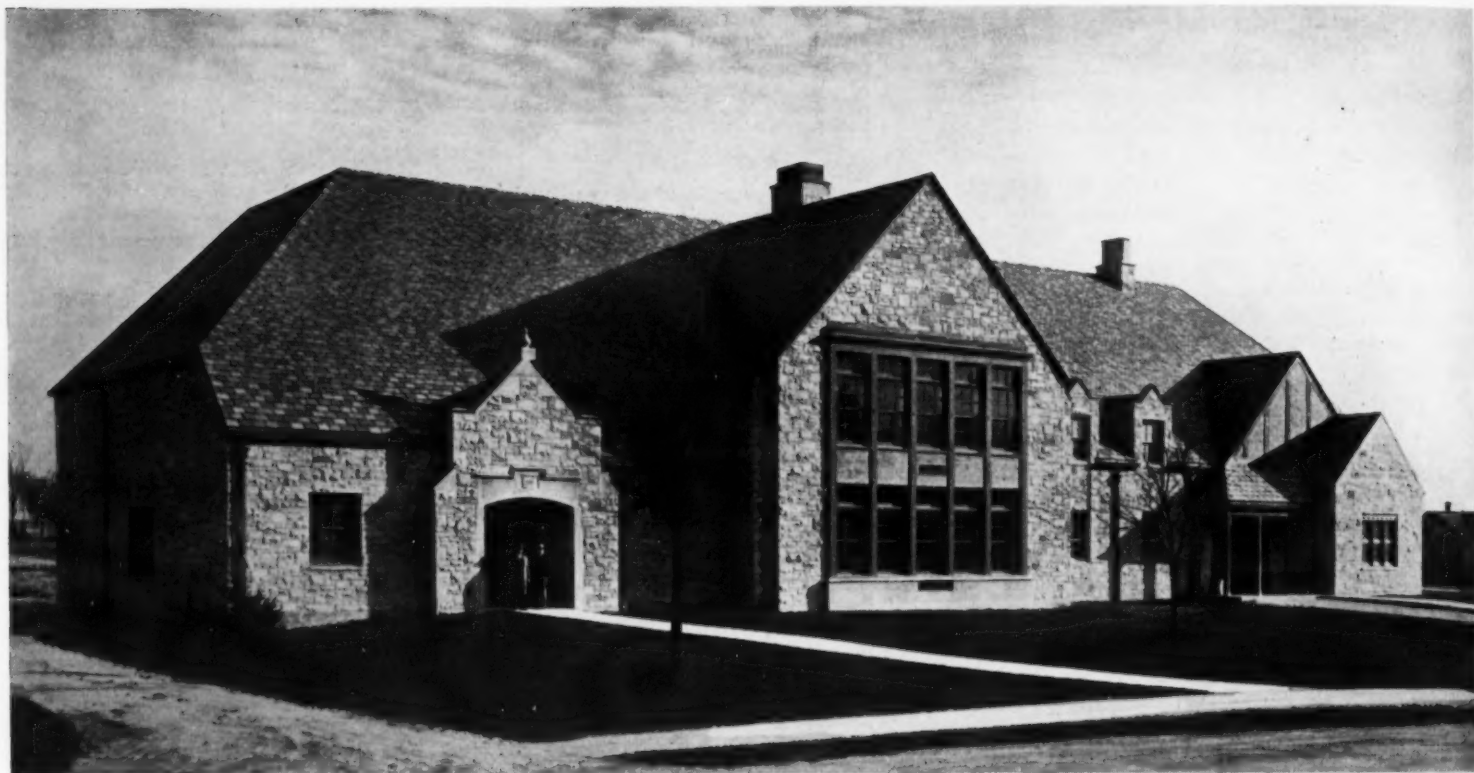
- Curriculum improvement:

- In commercial curriculum, and in courses where special visitation proves necessary.

- Library:

- Teachers to use professional library to solve personal as well as group and general problems.

In some such fashion as this the superintendent, after completing his school and community survey, may plan the distribution of his own time, as well as the specific objectives and techniques which he wishes to use. The above outline is largely self-explanatory, so no additional time will be devoted to it. However, one factor has apparently been ignored in it: the teachers' part in planning the program has not been evident. In reality, this program should be planned in a general faculty meeting, with the cooperation of every teacher present. After the meeting the superintendent may organize the ideas received, and I can see no reason why the resulting outline should not be given to the teachers for filing in the handbook.



The new Jefferson Elementary School, Jefferson, Wisconsin, has been designed and constructed to provide a civic beauty spot in a typical residential area. The landscaping, started since the photograph was taken, includes hardy shrubs and well placed trees.—Foeller, Schober & Berners, Architects, Green Bay, Wisconsin.

An Elementary School That is Attractive and Serviceable

Ray S. Smith¹

A trip of inspection through the new Jefferson elementary-school building, Jefferson, Wis., gives the visitor an impression of harmony and attractiveness. Pleased also is the person with a practical eye, for the new grade building was designed in accordance with modern standards of school planning and constructed with materials of highest quality and serviceability.

The L-shaped building is made up of two principal units—the classroom and the physical-education department. The classrooms are located on two floors; the physical-education unit has one floor level, although its height is only slightly less than that of the classroom unit.

The exterior walls of the building are of Lannon stone in shades of gray and buff. The sloping roofs are surfaced with slate of varying colors and thicknesses. Through the blending of these materials for the exterior, the grouping of the several units, and the interesting roof lines, the architects, Foeller, Schober & Berners of Green Bay, Wis., have achieved a pleasing and well-balanced structure.

The first floor of the classroom unit has four grade rooms, a kindergarten, and an office. The second floor has four grade rooms, a library, and a teachers' room. Toilets for both boys and girls are located on each floor. Lockers for students' clothing are recessed in the corridors.

Every classroom (dimensions 23 ft. by 40 ft.) is spacious and has been arranged to per-

mit the placing of all student desks with teacher's desk at the front of the room. Sufficient space is provided to place tables for read-

ing work and other special activities at the back of the room.

Then, too, the rear of each classroom is pro-



The Fifth-Grade Class in Session.

Across the back of the room there is a large cabinet for the storage of materials. It is so arranged that the top may be used for work projects.

¹Superintendent of City Schools, Jefferson, Wis.

vided with cabinets for storage of project materials. These cabinets are recessed and a certain portion of them is worktable height. The tops of the cases are covered with linoleum to provide a working area. It is in this part of the room that the students engage in their "projects" or "activities." Every classroom is provided also with bookcases and with built-in magazine and newspaper racks. An ample amount of bulletin board is located in suitable places throughout each room.

The rooms are equipped with thermostats to control heat and ventilation. The thermostats are so arranged that one temperature prevails during the day and a cooler temperature is maintained during the night, thus conserving heat. Further, the room temperature in the classroom unit and in the physical-education unit can be controlled independent of each other. The classrooms are equipped with radiators, and each room has a separate unit ventilator which assures clean, pure air every moment of the day. Each classroom also has a clock controlled and regulated from the master clock, and an outlet for future central radio installation.

The kindergarten was placed in the south section of the building to give this room the benefit of the maximum sunlight. In addition to the principal room, there are a workroom, for storage of project materials, a lunchroom,



The Classrooms Are Forty Foot Long Allowing for a Large Open Area at the Rear.

Above, at the left, there is a reading circle with the teacher in charge; at the right, several tables are occupied by pupils engaged in independent study.



The Kindergarten is Planned for Kindergarten and Community Uses.

The walls are paneled with knotty pine, the floor is covered with inlaid linoleum, and the ceiling is acoustical material.

a kitchen, and toilets. An elevated platform has been provided at one end of the kindergarten room. Other features are the beautiful fireplace and the cabinets for storage and display which are built around it.

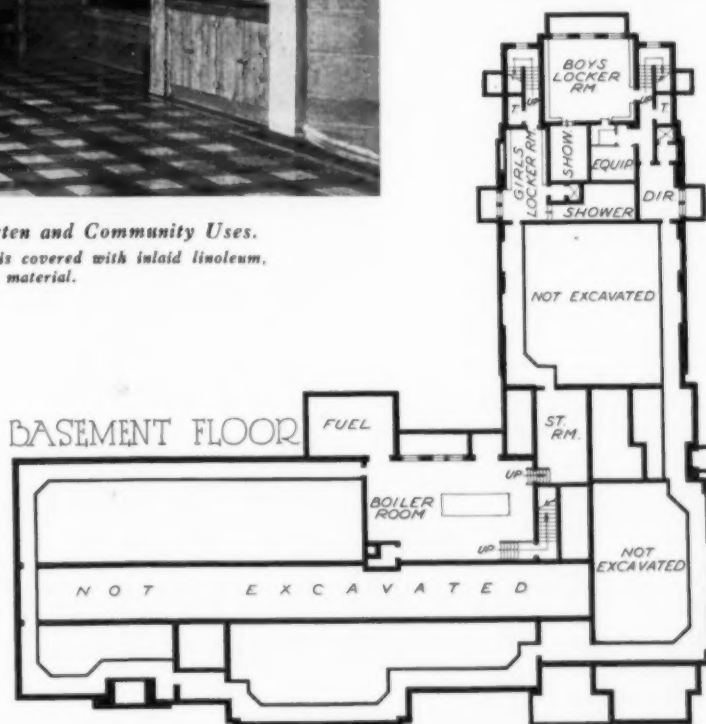
The lunchroom and kitchen have been strategically placed between the kindergarten and the auditorium-gymnasium. This unit is used three times every day: the kindergartners enjoy their crackers and milk, undernourished grade children drink milk daily, and rural children eat their noon lunches here. Since the unit is adjacent to the gymnasium, lunches for community gatherings can be prepared in the kitchen, and served directly to large groups in the gymnasium.

The physical-education department has a large room provided with stage so that this room can be used as a gymnasium or audi-

torium. The floor dimensions are 41 by 61 ft., and when used as an auditorium 400 people can be accommodated. The stage is as well equipped as any modern stage, having adequate curtaining and lighting facilities. Shower and locker rooms for boys and for girls have been provided in the space under the stage. These rooms have been arranged to permit their use by groups who are using the new athletic field now being developed at the grade-school site.

In the construction of the building, materials were used that would give a permanent fire-safe building, and all materials are of such a nature to assure a minimum of maintenance cost.

The exterior walls are built of stone facing and brick backing. Interior walls are of brick.



Basement Floor Plan, Elementary School, Jefferson, Wisconsin.

All floors are of reinforced-concrete construction. The roofs are supported by a structural-steel frame. Glazed-brick wainscots are used in corridors, toilets, gymnasium, and locker rooms. Other walls are plastered and painted.

The floors of all classrooms and gymnasium are surfaced with maple. Floors of all corridors, toilets, and stairways are of ceramic tile, while the floors in kindergarten and teachers' room are of rubber tile. The ceilings are covered with acoustical material for proper sound conditioning and the reduction of noise.

The interior trim in all rooms except the kindergarten is birch. The trim in that room is knotty pine.

Practically the only basement room in the building is the boiler room, which contains the vital mechanical equipment necessary to run a modern plant. One finds in it a stoker-fired steam boiler, a water softener, and the central controls for the temperature regulation and ventilation. Adequate storage space for the janitor's supplies is provided in the boiler room as well as on each floor of the building.

This building is located on a site containing 7.69 acres. The entire area will serve as a community (grade, high school, adult) recreation center. A part of the space is to be "black topped" and will be developed as an all-weather playground. There is also a play area for kindergarten and primary children, another section for the children of intermediate and grammar-grade age, and an athletic field. This last area has a softball diamond, a baseball diamond, a football field, and provision is made for a running track with a 220-yard "straightaway." Electric lighting for these fields is a part of the whole project.

The development of the site is a Works Progress Administration Project. The total appropriation for it is \$36,000. Nine thousand dollars are to be furnished by the city, and the Federal Government is appropriating \$27,000. The land was purchased at a cost of \$6,550. This amount was paid in full by the city in 1937.

Just what did this project cost and how is it financed?

The total building cost was \$147,000 and the cost of equipment was \$11,000 making a total of \$158,000. Cubic-foot cost was 34 cents. Since the building is a Public Works Administration project, the Federal Government's contribution is \$70,000 or 45 per cent. The city's share is \$88,000 or 55 per cent. The city has already raised and paid \$18,000 and \$70,000 has been borrowed without bond issue at 1½ per cent interest. Payments of the principal of the sum borrowed will be spread over five years, beginning in 1943, when the last high-school bonds will be paid. The high school was built in 1924 at a cost of \$225,000. Thus,



The Board of Education, Jefferson, Wisconsin.

Standing: Mr. Joseph Kexel, Mr. Alfred Heilemann, Mr. Ed Rindfleisch, Clerk, Mr. Ray Smith, City Superintendent of Schools. — Seated: Mrs. Lloyd Fehrman, Mr. Ray Fischer, Vice-President, Mr. Lynn Smith, President, Mrs. Truman Spooner, and Mr. Arthur Dabarciner.

by 1948 the community will be free of all indebtedness.

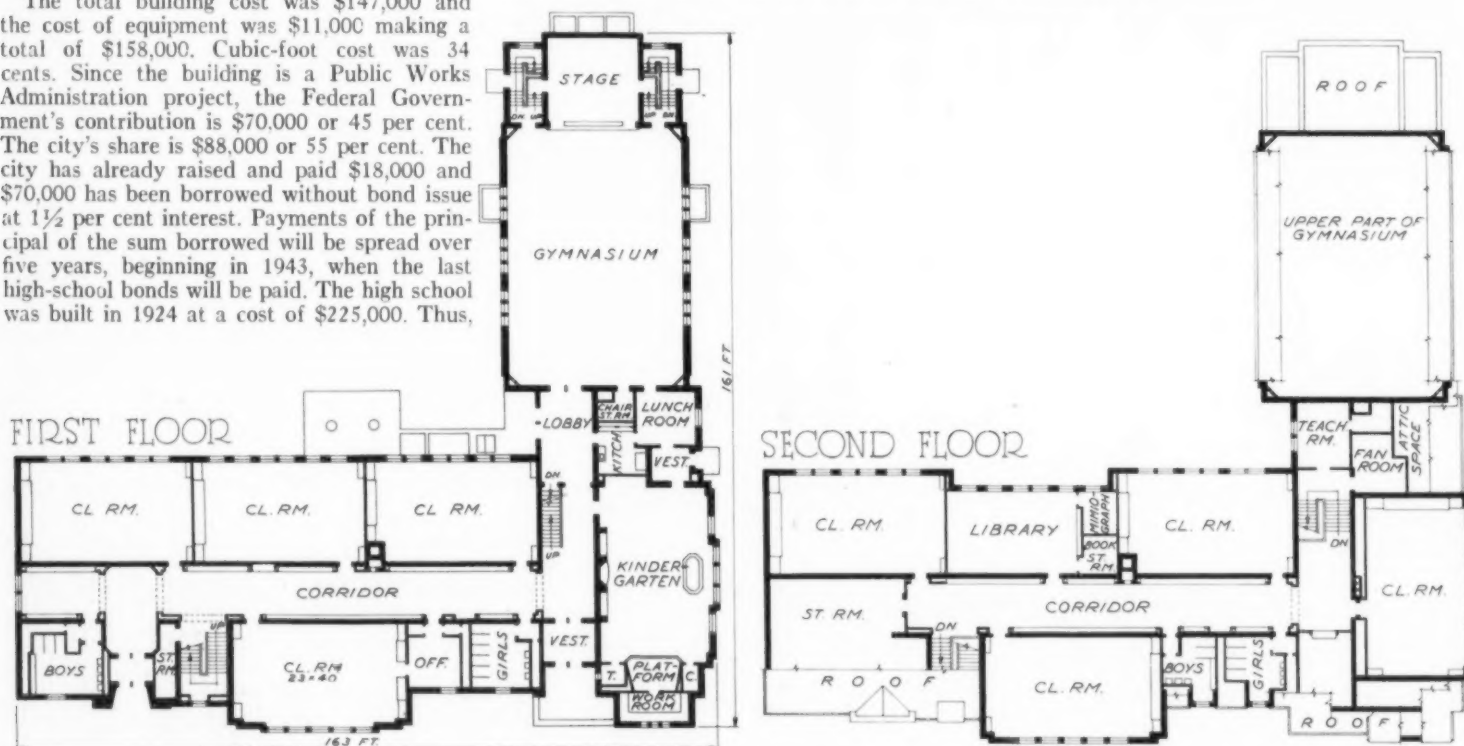
SUMMARY OF COSTS

	City's Contribution	Federal Gov't. Contribution	Total
Site	\$ 6,550	\$ 6,550
Building and Equipment	88,000 PWA	70,000	158,000
Community Recreation Field	9,000 WPA	27,000	36,000
Totals	\$103,550	\$97,000	\$200,550

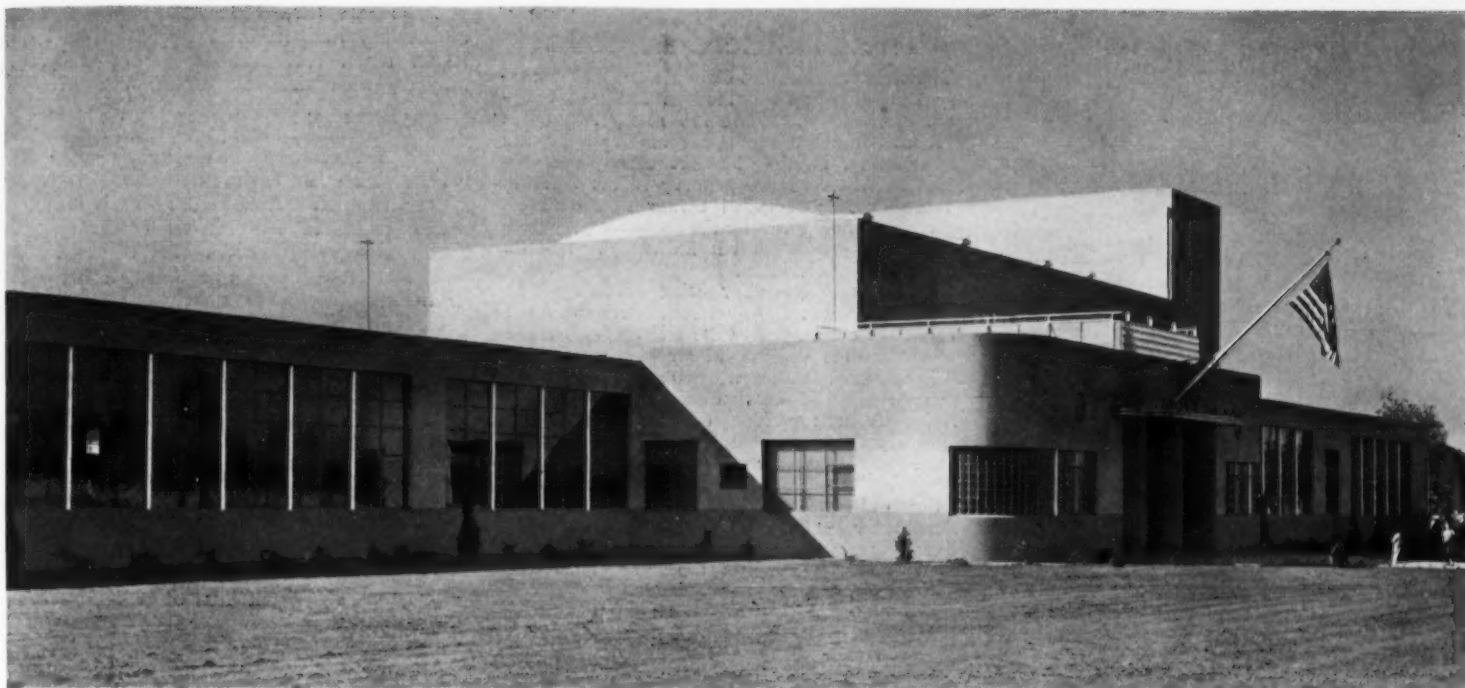
This building program has been carried on without upsetting tax rates. For a number of years the community has enjoyed the distinction of being among the seven cities having

the lowest tax rates in the state. The present rate for city, school, county, and state purposes is \$22.70 per \$1,000 of assessed valuation. The State Department of Taxation estimates that the assessed value is 93 per cent of true value.

Jefferson is a community of 2,700 people where the city administration and the board of education work and plan together. As a result, it has many fine municipal enterprises in addition to its schools, and yet its tax rate and debt burden are among the very lowest in the state. Intelligent long-time planning does count. Jefferson has a reason to feel pleased. A city as progressive as it claims to be — and is — may be proud of its latest achievement in educational advancement.



First and Second Floor Plans, Elementary School, Jefferson, Wisconsin. — Foeller, Schober & Berners, Architects, Green Bay, Wisconsin.



A close-up view of the entrance and auditorium section, Oakdale Union School, Oakdale, California.

The Oakdale Union School

Frank V. Mayo¹

Upon a nine-acre site near the westerly fringe of Oakdale, one of California's growing cities in the fertile San Joaquin Valley, center of a prosperous farming area famous for its clover-fed sheep and for its fine almonds, there stands the new Oakdale Union School recently completed at a total cost, including land, building, and equipment, of \$281,780. The Oakdale Union School District is the amalgamation of seven former school districts, the children being transported to the school largely by a fleet of buses. The old, inadequate, and in most ways, obsolete two-story brick grammar school will be torn down and the site used for other than school purposes. So that where less than twelve months ago there stood several small homes in small acre orchards and fields, this one-story

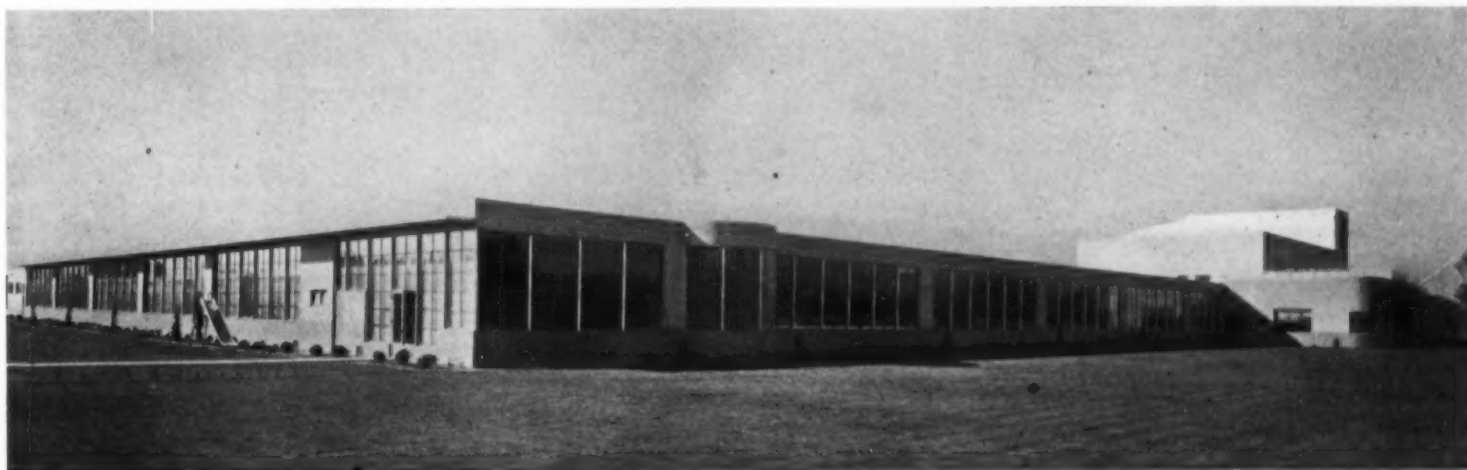
reinforced concrete classroom and auditorium building piles up with its high stage and gridiron loft to form an imposing architectural composition, an inspiration for some seven hundred young American citizens. The school is designed for a maximum capacity of eight hundred pupils, and can be extended in an orderly manner as may be further required.

The building faces north on Poplar Avenue. The plain concrete walls, formed with the aid of huge plywood-panel form boards, plainly show the fabric of the original concrete. These walls are tinted a pale green stucco with deeper green color below the window-sill line, and frankly acclaim the fire-resisting and earthquake-safe construction. The openness of the great classroom windows contrasts bravely with the solid walls of the auditorium, and the rounding corners of the main entrance portion, crowned by the glass bricks of the

solarium porch above the bottle-green terracotta columns of the entrance portico, give the building its modern architectural lines.

The building is "U" shaped except for the projecting wing of the auditorium and the flanking domestic-science rooms. Three 12-ft.-wide corridors serve the classrooms about the central court, which is approximately 150 ft. wide and 200 ft. long, across the rear of which extends the covered playcourt framed by steel trusses. The school provides 18 classrooms, standardized in size at 23 ft. wide and 40 ft. long, and two classrooms with adjuncts for domestic science, sewing, cooking, and house-making, all combining the latest and most modern equipment. The kindergarten is a charming room located in the northeast corner for maximum light and airiness, and convenient of access to parents who frequently bring their youngsters to school. The manual-train-

¹Mayo & Johnson, Associate Architects, Stockton, Calif.



The Oakdale Union School, Oakdale, California, from the front playground.—Frank V. Mayo and Eric W. Johnson, Associate Architects, Stockton, California.

ing shop is located to the rear and the large, well-equipped cafeteria with its most up-to-date kitchen, is placed back of the auditorium with a doorway from the kitchen to the auditorium for serving in that room on occasion.

The administration offices consist of the office for the superintendent and principal, with outer secretary's room containing the central public-address system and intercommunicating-telephone control; a conference room which is also the board of trustees' room, and the teachers' rest room. Ample storage rooms and closets are distributed throughout, the main storage room being convenient to the offices and to the library room which it also serves. A nurse's room is provided.

The building is 380 ft. long and 300 ft. in depth, and is set back from the sidewalk across a strip of bluegrass 75 ft. wide, providing an ample setting. An important feature of the plan is the arrangement to facilitate immediate exit when the fire alarm is sounded, numerous outer doors being provided, all equipped with panic bolts.

The auditorium provides a full stage for school and theatrical purposes, being fully equipped with a modern switchboard with dimmers, a setting hung from the "gridiron," and a multiple-production scenic set that can be put together to form all types of settings. Below stage is the only basement of the building, containing a small darkroom for

The Oakdale Classrooms

The classrooms of the Oakdale Union Elementary School typify the modern trend in classroom construction. There are really two types of rooms, one for the upper and one for the lower grades. Neither has the old-style cloakrooms attached. In the primary rooms there is a more or less secluded corner that contains shelves and hooks for lunches and wraps, while the upper grades have individual, built-in lockers in the corridors.

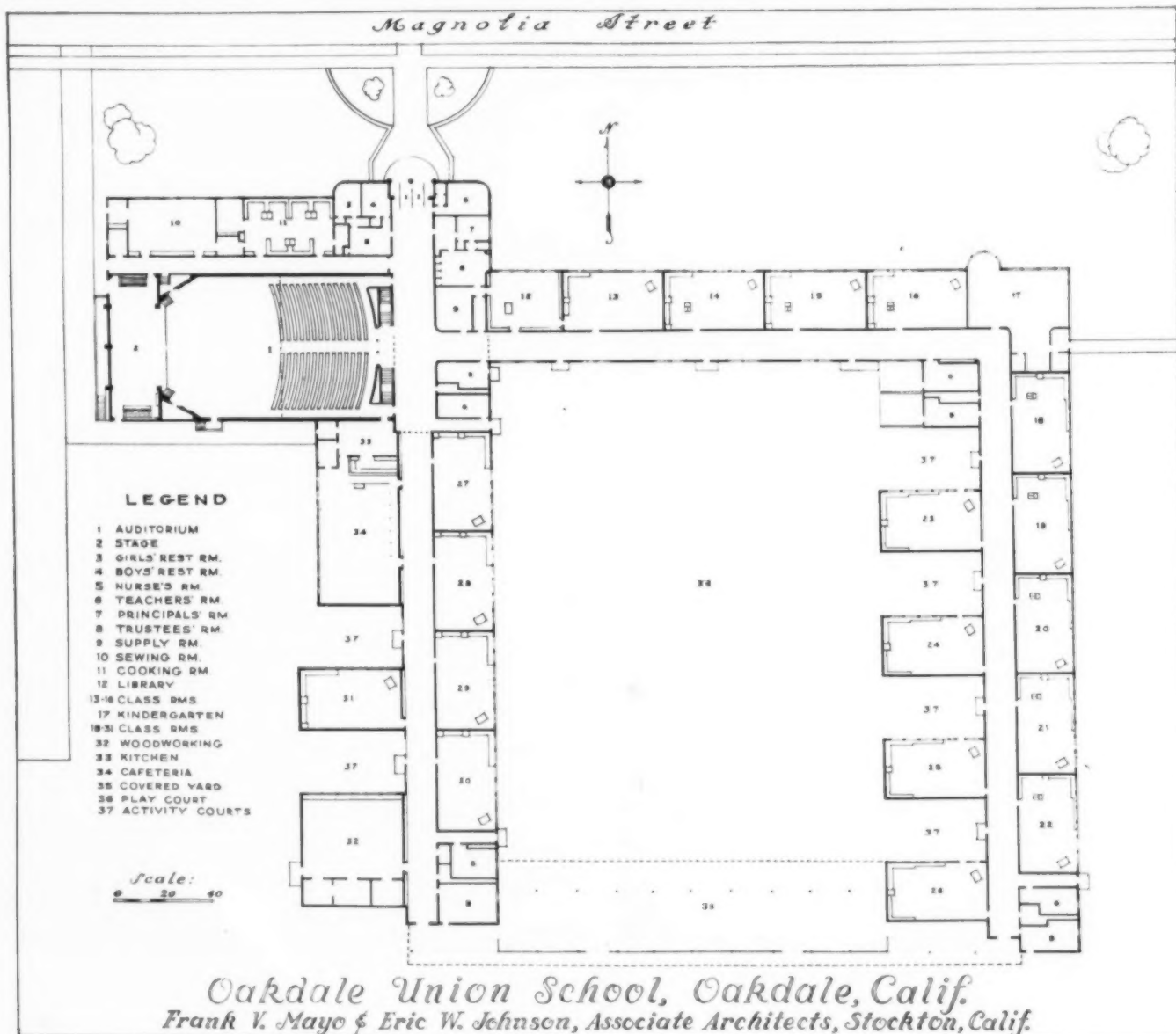
Due to the effective lighting system, which provides sufficient light without glare, and the harmonious coloring of walls and ceilings, these new classrooms radiate an air of cheerfulness and hospitality, factors which undoubtedly have a definite place in every classroom.

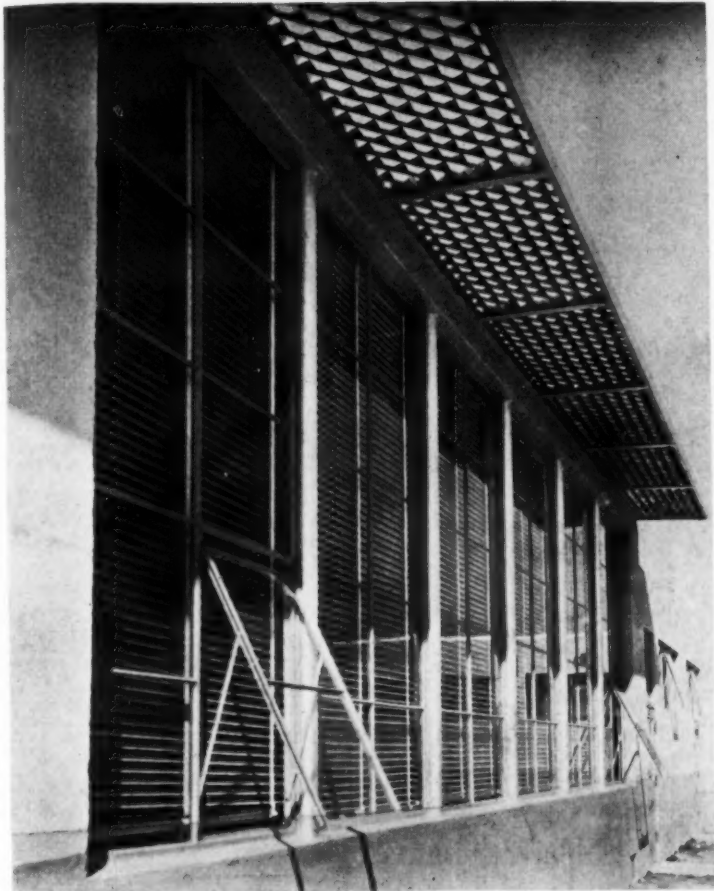
Aside from the idea of cheerfulness and hospitality there are many practical advantages in the new classrooms. With the individual lockers in the corridors and the elimination of the old-style cloakroom, more space is available for modern equipment such as sinks and running water, shelves, and built-in cupboards having worktable tops. The generous space which has been provided for bulletin boards is a source of pleasure for both teachers and pupils.

To summarize, these rooms are designed so that the teacher may have space and facilities as well as pleasant and healthful surroundings in which to carry on the modern activity type of classwork. — J. J. Berry, District Superintendent and Principal.

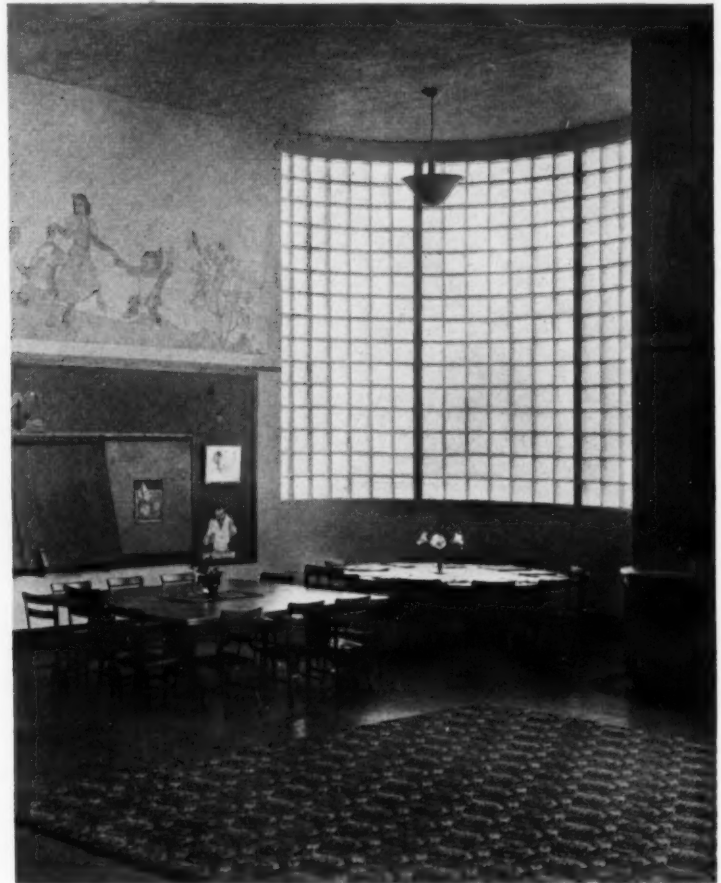
photographic use, the heating room for the auditorium, and the main electric panel board room. Here, too, is a stage dressing room finished with dressing tables, mirrors, and make-up tables. The balcony contains about three hundred seats, and the rear one half of the main floor slopes down to a level area between the opera chairs and the stage, providing a maple floor that can be used for folk dancing, musical, and other activities. Movable chairs are provided for this area, bringing the total seating capacity of the room to 1,000. In making provision for the auditorium, it was recognized that Oakdale has no large hall place for public meetings or theatricals, and the need of the community was served by this auditorium and its equipment, as well as the school itself.

From the secretary's office run a network of wires to operate a complete public-address system, having two separate channels, so that two separate programs can be selectively broadcast at the same time to the loudspeakers located in the auditorium, library, and classrooms. It is possible for the principal to talk to any teacher without being heard in any other classroom. A two-way conversation can be carried on between the principal and any teacher from any classroom, without disturbing the program being sent out through the other channel. The system is provided with two sets of receivers for radio. A portable sound projector is provided in two rooms





*All east windows of the Oakdale Union School have a metal sun visor which keeps out the direct rays of the sun.
The Venetian blinds are aluminum.*



*The kindergarten is an interesting room. The floor is covered with a rug upon which the children sit during the story-telling period.
The walls are painted with gay pictures of fairy stories.*

selected for visual-education instruction, and for use in the auditorium.

In the foregoing we have attempted to briefly describe the physical layout and use of the building, and some of its equipment. It will be of interest to describe some of the features of the planning and functions of the school plant. Webster partially defines "function" as the duty or business belonging to a particular station or character. In this strict sense, the Oakdale Union School is a functional school, and each unit or group of units is planned to do a specific duty. To illustrate: the average classroom of elementary schools vary only in the height of blackboards and the size of seating required by the different classes, and each classroom has the customary cloakroom for the pupils and a book closet for the teacher. While teaching methods have been changing with time, classrooms have not responded to meet the newer requirements, generally speaking. The State of California, through the Division of Schoolhouse Planning, is giving invaluable aid to school officials and architects to bring about the physical classroom changes required to meet modern standards. The Oakdale Union School does, we believe, conform to the most advanced conception of classroom planning and arrangement for the several grades.

The elementary grades up to and including the fourth grade, are located in the east wing. Each classroom has a hat-and-coat alcove for the pupils, a teacher's wardrobe, ample book-cases, and shelves and lockers beneath the long window for varying activities. Each room has a small sink and a drinking fountain. The top of the lockers below each window is finished with linoleum, metal trimmed.

The grades beginning with the fifth, are departmentalized, and the hat-and-coat alcoves are omitted from the rooms, lockers being provided in the corridors. The details of arrangement of cabinets and shelving in the departmental rooms vary from those of the lower grades, being designed to meet the specific needs of each teacher, although conforming in general to the arrangement described for the lower classrooms and providing long, low shelves and countertops.

As the classrooms are arranged in the plan according to the group and function of each, so is the play space arranged to serve these groups to best advantage and with due consideration for the age of the children.

The interior court is the play yard for the lower grades where the little boys and girls can play together. Apparatus is provided suitably for these ages. The rear yard containing about six acres is used for the playground for the larger children, and is readily



The front entrance to the Oakdale Union School, Oakdale, California.



A Typical Classroom,

showing the slanting ceiling, the countersunk ceiling lighting fixtures, placed to supplement the light over the inner row of desks. These lights are controlled by an electric eye.

accessible to their classrooms, just as the interior court is accessible to the elementary rooms. Three baseball diamonds are provided with excellent wire backstops, and a paved court is arranged for basketball and volleyball.

It is apparent that the large site selected, having two street boundaries, offered unlimited planning opportunities, as well as a challenge to create a building without usual handicaps involving cramped play space, undesirable lighting of classrooms, and the like.

The "U" shape permits the universal admission of either north or east light in every classroom. Most of the rooms in such a plan normally parallel to the main corridors, obtain such light; but as south and west light, was deemed inferior to the north light in this section of California, the expedient of placing a number of classrooms at right angles to east and west corridors gives a unique arrangement of north light to each such classroom, and an outdoor lawn court, 25 ft. by 40 ft., with low shrubbery planted close to the classroom walls. The use of the green color on the concrete walls eliminates glare from these walls into the court classrooms. The arrangement thus provides an outdoor classroom for each room thus disposed, with door leading directly from the room.

With the exception of the kindergarten, all classroom ceilings slope away from the windows at an angle of about twelve degrees, for the purpose of reflecting the light that reaches the ceilings, down upon the desks. It is well known that the light that enters the upper part of the window is from two to three times more effective in lighting the blackboard opposite the window. Hence the windows extend almost to the ceiling line, and are 40 per cent of the floor area, so that a very satisfactory and reasonably uniform distributed light is obtained. In the east rooms, metal venetian blinds are provided. It has been demonstrated that if the teacher will adjust the blinds, which are light and easy to operate, she can obtain a maximum of light for the inner wall and desks by directing the light to the ceiling several times a

day. Photometric tests of lighting were recently taken by Dr. Brown, of Stanford University, results being declared most satisfactory. To further control the east lighting a special diamond-shaped lattice cornice of metal extends the length of each east wall over the windows. This further directs the light inward and cuts off much of the direct sun rays against the glass. This innovation has been also very successful in accomplishing the desired purpose.

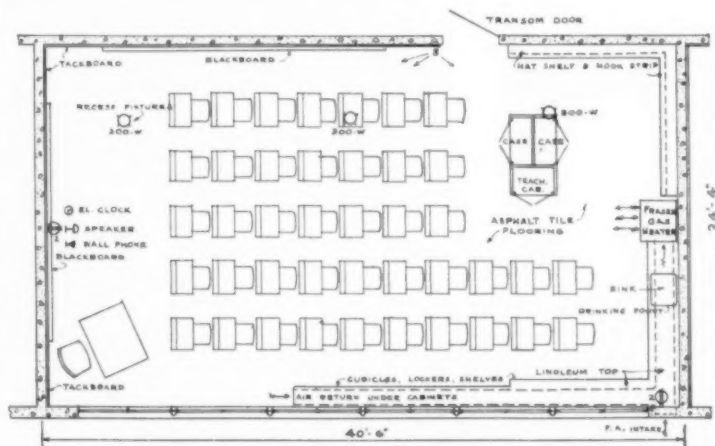
The color of the walls of the east classrooms is pale green, light tan in the north rooms, these colors being carefully selected to provide the maximum of light-reflecting values consistent with eye comfort and cheerfulness. The ceilings throughout the classrooms are acoustical-type plaster over fire-proof insulating lathing. They are tinted an off-white color.

All interior walls have been plastered a thin coat over the concrete with a stucco of colors carefully selected, while the lower portions of corridors are painted to form a soil-resisting wainscot throughout. Concrete floors are at grade throughout and are finished with asphalt tiles cemented to the slabs, finished generally in two lightly contrasting colors, with borders. Black linoleum is used throughout the building as the wall base, cemented to the concrete walls and finished with a small polished aluminum cap mold. Lighting fixtures, except in corridors, are recessed into the ceilings and in general, are placed about 4 ft. from the inner walls of classrooms, instead of in two rows of lights usual in classrooms. However, it is believed that even on the darkest days these lights will not be needed in the classrooms, and are installed for night use.

Unit heating was determined upon because of the great area of the building. Gas heaters, with small blower fans, are installed in each classroom and other units requiring heat. The heaters are provided with fresh-air inlets as well as recirculating grilles placed to prevent cross drafts. The heaters are controlled by two master clocks which start and close the units, but each heater is thermostatically controlled in each classroom when permitted by the time-clock circuit. The fans are operated during warm and temperate weather to provide thorough ventilation when heat is not required. The auditorium has two large gas-fired heaters thermostatically controlled.

While the entire building was designed and detailed for the purposes of obtaining the most practical instructional condition possible, the architects were permitted unusual liberties in designing the kindergarten room. To completely charm the heart of every youngster who enters the room (and not a few of the grownups), the entire wall area above the blackboard line is decorated with a mural painting in colors, depicting in decorative fashion almost life-size scenes and figures from Snow White and other nursery tales. The front kindergarten windows conform to the main classroom windows for the benefit of architectural lines, but the long, low line of the building is effectually terminated by the projecting semicircular glass-brick bay window, to form a most interesting play alcove. On the east wall the window sills are lowered two feet further, to permit the tiniest child to see outside. The room being "L" shaped, it is very easy for the teacher to divide the class into two or three separate play groups. Special low racks for drawings and books and pictures, and receptacles for blocks and toys, and easel-type, reversible blackboards are provided. A large thick rug is spread over the central portion of the room, over light-colored asphalt tiles. Just outside their door, these children have their own separate hedge-enclosed play yard, with slides, sandboxes, and juvenile swings.

While a most unusual building has been here created, it has been accomplished with the simplest of materials and without special enrichment or ostentation or waste. Careful use of form and color has contributed a great deal to the whole. No impression must be gained that the effects obtained were at the expense of rigid economy at all times. The building cost is 86 per cent of the construction, while the equipment, furnishing, and seating represents 14 per cent of the cost. The total cost of the building, and of its equipment, represents an average cost of \$4.39 per square foot.



Plan of Typical Classroom.

Choosing a School Sound Recorder

Cline M. Koon¹

The recent awakening as to the educational advantages of the sound recorder has found the average school executive totally unprepared to choose the equipment which is best suited to meet his needs. If he decides to buy a recorder, he probably will follow the procedure he has found successful in the introduction of other new equipment into his schools. He may examine the machines, read the literature on the subject, and seek the advice of university professors or other school officials who are familiar with such equipment. Certainly he will want to sell the idea to his board of education, his community, and his teachers.

I. General Considerations

Practice differs in different school systems, but usually a democratic procedure is followed in the introduction of new equipment and new practices into the schools. The board of education, the superintendent, the supervisors, the principals, the teachers, the patrons, and even the pupils participate in the experimental use and purchase of new equipment. Likewise, the idea to do so may originate almost anywhere.

The superintendent may arrange discussions and demonstrations before the board of education, parent-teacher groups, and teachers' meetings. He may enlist the aid of the science and shop teachers in judging the equipment itself, and of the music and speech teachers in determining the quality of the reproduced sound. Probably he will encourage all his teachers to consider ways such equipment could be used to improve teaching. In this way, he will profit by the suggestions the teachers make, and they will become duly impressed by the educational possibilities of the medium.

The basic principles upon which the sound recorder is built date back to the earliest days of the phonograph, or Edison's "Voice writer" which was patented in 1877. It was not until 1928, however, that the electrical process of instantaneous recording became practical. It is simply the process of converting sound waves into electrical impulses which cause the cutting needle to vibrate as it cuts a groove on the wax or acetate disk. The pickup needle vibrates just as the cutting needle (*stylus*) did, as it follows the groove. These physical vibrations are converted back into sound waves, amplified, and reproduced through the loud-speaker.

Radio stations made the first use of sound-recording equipment. By 1934, sound recorders began to make their appearance in college speech departments. Practical tests in service since then have enabled teachers to discover a wide variety of uses for recorders, and have enabled manufacturers to perfect the equipment for school use. Now it is possible for schools to purchase sturdy recorders capable of rendering high-quality, dependable service in the hands of the average teacher, and under practically all conditions. Little special technical knowledge is needed to operate the cheaper machines.

If the recorder is built into a centralized radio-sound system, a choice is given between custom-built recorders and factory-built

recorders. Custom-built equipment may have certain advantages over factory-assembled equipment in the ease of incorporation into a particular school sound system, but it never should be used unless the school officials have a superior sound engineer in charge of the installation and a good machine shop is available in which the parts can be machined and assembled. Since the parts must be matched, balanced, and designed for the greatest simplicity of operation, seldom is efficiency or economy served by homemade recorders. Good recordings cannot be made on makeshift equipment. Most manufacturers realize the hazards involved in homemade assemblies, so they build recorders with carefully balanced parts. Sometimes they are incorporated as integral parts of a carefully balanced central sound system involving radio and speech channels as well as recording units.

Most recorders are built to operate at 110 volts on 60 cycles in conformity with most current supplies. But if the current supply is not standard, the machine should be selected to operate on the available current, whatever it is.

School officials should deal only with well-established, financially sound companies capable of supplying replacement parts indefinitely, and of protecting their customers from liability suits growing out of the illegal use of patented parts. The cost of machines ranges from \$120 to \$700, or even \$2,000 for the best used in schools. The cost of blank disks and styli average about 5 cents per minute of cutting time at 33 1/3 revolutions per minute (electrical transcription speed) to 9 cents per minute at 78 r.p.m. (phonograph speed). The operating costs are gradually being reduced, but they are still too high for poorer school districts. The practice is fairly well established for students to pay for the recordings they make.

Permanent installations of professional recorders to be operated and serviced by skilled technicians will insure a uniformly higher quality of transcriptions than can be produced by portable equipment. Likewise a better type of recording can be made on a two-speed recorder, with high- and low-frequency equalizers and a 16-in. turntable, than can be made on a small portable recorder. The former is capable of making and playing any size disk up to 16 inches in diameter at either 33 1/3 or 78 r.p.m. It can be used for more different purposes. However, it is more complicated to operate and much heavier to carry from room to room.

Compact, single unit recorders capable of cutting disks up to 12 inches at 78 r.p.m. are usually selected if they are to be carried around very much and operated by various persons. The recorders used in this way must be quite sturdy, easy to set up and operate, and the transportation should not involve too much effort. They are very satisfactory for most self-analytical and corrective work in speech, music, and foreign languages, but cannot be used to record or play selections uninterruptedly which are more than 4 1/2 minutes (700 words) in length.

II. School Use of Sound Recorders

It cannot be too strongly emphasized that the nature of the recorder selected should

be determined by the use that is to be made of it. If music is to be recorded, for instance, the recorder must be able to cover a much wider range of frequencies (sound waves) than is necessary to record speech. The two major functions of the disk sound recorder are to make and play school-made recordings, and to play commercially produced phonograph records and electrical transcriptions of the type used in broadcasting. In a survey the writer recently completed, more than 300 western school officials made comparative evaluations of various types of services of sound recorders.

The consensus of their opinions as to the relative merits of various types of school-made recordings are shown in Table 1 below.

TABLE 1. Suggested Uses of School-Made Sound Recordings

Rank	Nature of the Recorded Material	Per cent of Total
1.	Self-analytical and corrective work in speech, music, and foreign languages	31
2.	Practice to improve the delivery of addresses, debates, orations, and dramatic productions	22
3.	Select broadcasts recorded for use whenever needed	14
4.	Outstanding school achievements as records and models for use whenever needed	13
5.	Model speeches, debates, and foreign-language selections to be imitated	10
6.	Instructions and explanations often repeated	10

Table 1 above reveals that in the opinion of western schoolmen approximately three fifths of the total use of a school sound recorder can be performed satisfactorily by a small, single-speed recorder. The material falling under the first heading (with the exception of some music uses), as well as those falling under the second and the last headings, can be recorded and played satisfactorily on the small recorder.

Other functions of school-made recordings suggested by the respondents follow:

1. To record programs to be broadcast over one or more radio stations.

Colleges frequently record programs to be broadcast over several radio stations within the area the college serves. Also secondary schools record programs to avoid the transportation of students long distances when they are scheduled to be on the air. "Air check" samples of programs also are made during rehearsals.

2. To record sound effects for use in school plays.

3. To record outstanding college talks and music to be sent to high schools and clubs for publicity purposes.

4. To make sets of records for practice purposes in learning codes and shorthand.

5. To train college students in radio engineering and recording techniques.

6. To record parts of class recitations to be analyzed by the supervisor and teacher.

In the survey just mentioned, western schoolmen also were asked to indicate the nature of the subject matter they wanted on commercially made recordings. Table 2, page 48, indicates the demand for various types of commercially produced recordings.

¹Lecturer and Consultant in Radio and Audiovisual Education, Los Angeles, Calif.

TABLE 2. School Demand for Various Types of Commercial Recordings

Rank	Nature of the Recorded Material	Per cent of Total
1.	Dramatizations of historical occasions and history-making situations.....	21
2.	Longer musical selections than can be put on phonograph records.....	19
3.	Recorded talks on science and vocations by, and interviews of, eminent authorities	18
4.	Short inspirational talks, interviews, and dramatizations	17
5.	Recorded poems, short stories, and readings used frequently in class....	14
6.	Familiar plays by famous actors and important addresses.....	11

The following are other types of commercially made recordings the respondents indicated would be useful in schools:

1. Transcriptions explaining and illustrating recording techniques.
2. Sound effects for use in dramatic productions.
3. Current events and addresses on public affairs of outstanding importance.
4. Standard tests in education, psychology, speech, and languages.
5. Recordings of psychological reactions for analytical study.
6. Sets of recordings to supplement textbooks and reference works.

A large type of sound recorder with suitable play-back attachments, or a separate transcription player, is required to play the transcriptions suggested above. The latter are two-speed electrical phonographs capable of playing 16-in. disks. They cannot be used to make recordings. Principals of large high schools indicate that they need a dozen or more transcription players for every sound recorder.

III. Specific Tests of Sound Recorders

The potential purchaser of a school sound recorder should acquaint himself with the best machines available within the means at his disposal. Assume that two or three well-established firms offer recorders which seem to meet in a general way the needs of his school. Then it becomes the schoolman's responsibility to choose the best recorder he can get for his money. This involves an examination of each machine to determine the plan of the layout, the nature of its parts and its sturdiness of construction; the operation of the machine to determine its precision and practicability of manipulation; and testing the quality of the sound output.

In universities which have colleges of engineering and in city school systems contemplating large orders, the parts of the machines may be given scientific laboratory tests. Most potential purchasers, however, are more interested in the sum total performance and dependability of the recorder than they are in the performance of its component parts. School usage is hard on equipment. Therefore, it must be built to give years of dependable service under precisely this type of usage.

In the purchase of such important equipment as sound recorders, school officials cannot be too circumspect about what they are to receive for their money. They cannot afford to be carried away by the rosy ringing recommendations of a clever salesman. Instead they should judge the equipment in terms of its suitability for use in their schools, and in terms of its flexibility and dependability. The following are the essentials of a good sound recorder:

Five Essential Qualities

1. *The recorder is substantially constructed of sturdy parts built to give the maximum dependable service.*

All the parts are first class, and the layout is well planned and installed with a view to ease of accessibility for servicing and repair. The parts are securely attached to the chassis. The tubes, motor, and speaker are easy to remove. If it is a portable recorder, it is installed in a strong, conveniently portable case, which has an attractive durable finish. The motor board is rigid and will not creak, warp, or vibrate. All screws, nuts, switches, and connections are such that they will not jar loose from reasonably rough usage.

2. *The recorder is practical to operate by the average user and designed to give reasonably uniform performance under all operating conditions.*

The switches, controls, and adjustments are clearly marked, easy to understand, and simple to manipulate. The provisions for adjusting the angle of the stylus and the depth of cut can be adjusted easily while the machine is recording. A switch permits instantaneous change of speed on a two-speed recorder. The plugs, sockets, and other parts are designed to hold firmly in place and to make incorrect setups impossible. Clearly worded operating instructions are mounted on the recorder.

3. *The turntable maintains a smooth, constant rotating speed during the cutting and playing of recordings.*

Approximately 20 ounces of pressure is required to cut the groove on an acetate disk. The resulting drag is heavy and varies with the pitch of the sound, and the distance of the stylus from the center of the disk. Hence the driving power usually is applied to the rim of the turntable to equalize the load on the motor. The smoothness of rotation of the turntable is the very heart of the disk sound recorder. The slightest variation in the speed of the turntable seriously affects the pitch of the recorded sound and adds to the wear on the recording. Sudden changes of speed cause "wows" and serious distortions. The 16-in. turntable with its weight principally out toward its rim is more stable in speed than the 12-in. turntable, since the inertia while rotating tends to iron out irregularities. The former are heavy and are mounted on sturdy shafts which have their weight resting on hard precision bearings supported on a smooth, hard surface which insures the minimum friction and wear. A high-grade, synchronous motor with ample power (1/20 horsepower) to overcome fluctuating loads is used. The coupling connecting the motor and the turntable is simple and flexible enough to prevent the slightest fluctuations in the speed of the motor from reaching the turntable. The noise level of the recorder is low.

The noise of the motor and turntable of a recorder may be judged by placing a live microphone near the turntable and listening through the loud-speaker when the motor is running but no record is playing. The surface noise of the record can be determined by cutting a silent groove and then playing it back through the loud-speaker. Induction noises and hums can be detected by listening to the machine in operation. The slightest waver of the turntable can be detected by holding an inverted L-shaped piece of cardboard so that the top rests on the motor-board and the other parts are quite close to the edge and top side of the revolving turntable. Then look through the spaces between the edges of the cardboard and the turntable.

4. *The cutting head faithfully records the sound originating at the microphone.*

The microphone converts the sound waves into electrical impulses which are greatly amplified and fed into the cutting head. The cutting head converts the electrical energy into mechanical energy, and faithfully records all frequencies from 150 cycles to 8,000 cycles with the minimum of distortion. Even the most complex sounds can be accurately recorded regardless of their intensity. To do this, the lead screw and cutting

mechanism must be very accurately machined. The cutting head is of the full-frequency type and sturdy enough to hold constant the angle and position the cutting stylus. Otherwise the grooves could not be placed on the disk with absolute precision. The angle and depth of cut is easily adjusted while in operation. A float stabilizer acts as a shock absorber. The evenly spaced grooves are readily adjustable from 90 to 130 lines per inch, either from the outside of the record in or from the inside out. By means of a microscope which is standard equipment with better recorders, it is possible to determine the evenness, smoothness, and depth of the groove being cut. A visual volume indicator shows whether enough power is being fed into the cutting head to record ample volume on the disk. The fluctuating movements of the volume indicator are very fast. Specially treated steel (Stellite) or sapphire pointed styli are used as cutting points. The former are cheaper and tougher, but must be resharpened more often. Sapphire cutting needles make a quieter cut and have a longer life if they are not chipped or broken by misuse.

5. *The pickup, amplifier, and loud-speaker accurately reproduce the recorded sound with the minimum of amplitude distortion or background noises.*

The pickup arm is quite light and easily manipulated. Its weight on the disk is about 2½ ounces. It holds the playing needle at the correct angle tangential to the groove at all diameters from the center to the outer periphery of the 16-in. disk. The high impedance type of pickup and long arm reduce the tracking error to less than 3 per cent which practically eliminates the hiss or distortion from this source. Also it results in higher quality reproduction and less wear on both the disks and the playing needles. Since the same amplifier is used in recording and reproduction, it is of the high-gain type; i.e., capable of taking the complex electrical impulses from the microphone and multiplying them many millions of times without distorting them either as to pitch or relative intensity. The amplifier has a minimum of 6-watts output and a uniform frequency response from 40 to 8,000 cycles. The amplifier is equipped with high- and low-frequency compensating equalizers, volume and equalizer controls, and at least 10-in. loud-speaker with a good baffle.

A simple way to test the tone quality of a record is to record the sound of a tuning fork and then alternately listen to the reproduced sound and the original. Various piano notes can be used in the same way. Although a piano note may not be as easy to judge because of its supporting harmonics, a wider range of frequencies can be tested, and the sum total effect of the reproduced sound judged. The quality and condition of a stylus may be determined by cutting a blank groove on a disk known to be of good quality, and using the cutting head as a pickup. Of course, it must be connected with the input of the amplifier instead of the output. The volume indicator should show a very low volume output. Conversely a disk of unknown quality may be tested in the same way, if a stylus of known high quality is used.

A good general performance test of a sound recorder may be made by recording a few lines, and then play the record on a reliable transcription reproducer, recording the reproduced sound. Repeat this process two to twenty times, always doing the re-recording from the last previous reproduction. This will multiply the distortions and background noises of the recording. It requires an excellent recorder to make a clear and distinct recording from the eighth or tenth reproduction.

Further Essential Considerations

Microphones have not been considered above. The simple reason is that a wide assortment of good microphones is available, and the selection should be governed by the nature of the work they are expected to do

and the acoustical properties of the room or rooms in which the recording is to be done. A medium-grade, sturdy dynamic or ribbon microphone usually will prove satisfactory for use in classrooms with portable recorders. But a high-grade crystal or a dynamic microphone should be used in recording studios to make high fidelity recordings approximating the quality of professionally made electrical transcriptions. High fidelity means that all of the complex sounds reaching the live microphone—and they alone—are faithfully recorded in every detail so that they may be reproduced in a natural, lifelike manner. Various microphones should be tried out under the conditions in which they are to be used, and selected upon the basis of their performances under such conditions.

Microphone technique is a major factor, aside from the equipment itself, which should be considered. But since it has been discussed extensively in broadcasting publications, it will not be considered here. Suffice it to say that considerable experience is necessary before one masters the microphone. After it is once mastered, however, recordings can be made which are far superior to the original sound.

Another major consideration is the place where the recording is to be done. The microphone lacks the power of discrimination pos-

sessed by the human ear, and picks up the reflected sound from the hard walls and metal ceilings of old-fashioned classrooms just as faithfully as it picks up and transmits the original sounds.² The ideal room for recording approximates that of a broadcasting studio, being soundproof and having adjustable drapes, soft rugs, and soft plaster or acoustical walls, possibly set at angles other than 90 degrees.

A third major general consideration in this connection is the provision within the school for the operation and maintenance of the sound recorder. If possible to do so, the person or persons charged with these responsibilities should be taken into consideration at the time the equipment is being selected. For when one chooses a school sound recorder, he should consider more than the equipment itself. He should consider the machine *in its sum total working situation* as a unit. Then he will be buying a service capable of letting students hear themselves as others hear them, and of presenting quickly and dynamically material which would be too complicated or too dull for the students to understand otherwise. He will not be buying a mere machine.

²All classrooms should be built to reduce reverberations to a minimum, as teachers and pupils do better work in a quiet, "dead" room. Soft "acoustical" plaster and special wallboard are being used to deaden classrooms.

custodians along with the principals come for a day of instruction. The service of an expert school-building service man is secured who talks, demonstrates, and answers questions which arise. Phases of the work are discussed, and new methods of cleaning, etc., are tried.

Planning the Schedule of Work

Planning a schedule of work for the janitorial personnel is essential if efficient service is expected. No wonder the janitors have "fallen far short of the ideal in their practices" if the administrators have not bothered to plan a definite schedule of work. It is just as necessary, even more, to plan the work for the janitors as it is to plan the work of the teachers. Administrators wouldn't dare employ a teacher, then open the school building and say to her: "Here are the children; start teaching." Yet that has virtually been said to the majority of janitors: "Here is your building; go to work." It is ridiculous to assume that teachers or janitors can haphazardly find their work without a schedule.

With the help of the janitors, the principals and superintendent have planned a definite schedule of work which is being followed specifically and covers every hour of the week. (The janitors were quite helpful in making the schedule. In addition to giving them a sense of importance, they were able to allot the time for certain jobs in the schedule. In some cases they were timed on specific jobs in order to properly divide the time.) Emergencies, of course, are taken care of as they arise, but in the main, by referring to the schedule, one is able to find the particular job on which each janitor is engaged.

It would be difficult to plan a schedule that could be used in a large school as well as a small school, but regardless of the size of a building a schedule of work should be planned. In making a schedule it would be well to classify the regular routine duties that should be performed daily, weekly, monthly, semi-annually, annually, and the jobs that should be done as the need arises. To illustrate:

I. The following jobs must be performed daily:

1. Those that have to do with heating and ventilating.
2. Cleaning classroom and office floors.
3. Complete dusting of desks, woodworks, etc.
4. Sweeping corridors, entrances, and walks (twice daily).
5. Locking and unlocking buildings and classrooms.
6. Mop and disinfect toilet floors (twice daily).
7. Clean all walks around building.

II. Tasks to be done weekly:

1. Dust radiators.
2. Clean blackboards.
3. Clean erasers.
4. Clean all brushes, mops, etc.
5. Mop corridors.
6. Polish all door knobs, handrails, etc.
7. Wash glass in all doors (twice weekly).

III. Tasks to be done monthly:

1. Removing dust from all wall decorations.
2. Wash windows on inside.
3. Wash tile walls.

IV. Tasks to be done annually or more often:

1. Wax-finished floors (more often if needed).
2. Oil oiled floors.
3. Scour oiled floors.
4. Clean and polish all furniture.
5. Wash windows outside (twice).
6. Minor building repairs.

The above listed duties form the basis of the schedule of work followed by the jan-

Better Schools Through School-Building Service

Rufus D. Haynes¹

In the program of studies for a modern school a great portion of the day's schedule is devoted to the teaching of health, safety, art, and the development of proper attitudes and habits of living, and far too many times these same schools are overlooking the significant fact that these qualities are taught incidentally through the environment forced upon the children in the classrooms, corridors, rest rooms, and the school grounds.

This fact places the responsibility on the school administrator to provide an environment in and around the school plant that is conducive to the proper development. If any degree of success is to be expected, such factors as the following can't be overlooked: beautiful, well-kept grounds; healthful, comfortable classrooms in respect to heating, cleanliness, lighting, and good arrangements; well-kept rest rooms, free from contamination and obscene writing; and clean entrances, corridors, etc.

In the Paragould public schools, the school-building service has become an integral part of the school program. The service is not ideal, nor the methods unique, but there are three well-defined administrative approaches to the problem of school-building service: (1) training for the in-service janitorial staff; (2) planning the schedule of work; and (3) the school-service contest.

The Paragould schools form a comparatively small system made up of three elementary schools and one junior-senior high school. They enroll a total of 1,439 pupils, employing 40 teachers and a janitorial staff of five men, one for each elementary school and two

for the junior-senior high school. It is the policy of the board of education to elect staff members only on the recommendation of the superintendent, a fact which makes it necessary for each janitor to meet the same health requirements as those of the teaching force, possess a reasonable amount of education, and also high qualities of character and personality.

Training In-Service Janitors

Here, as in the majority of small schools, the building service has been in the hands of untrained workers, due to the fact that no agency has accepted the responsibility to train building men. Then, too, finances have been so limited that it was impossible to employ technically trained men from other localities. Knowing these facts, the first problem was one of training the men employed to create for the children an environment considered by the administrator to be desirable.

Regular conferences and informal meetings were held with the janitors and the building principals. It was found that the janitors were more than anxious to do their jobs well and that they were working as well as they knew how. Weaknesses were pointed out, along with methods of improvement. Books, magazine articles, and pamphlets were suggested for their reading; in short, a general educational program in line with their work was conducted for the first year. (One janitor became so interested that he bought material from his earnings and shared it with the others.)

In addition, a local school of instruction is held each summer for the custodians and the building principals. These schools are held for one day during the vacation at which time all

¹Superintendent of Schools, Paragould, Ark.

PARAGOULD PUBLIC SCHOOLS									
Score Sheet - Service Contest									
SCHOOL _____		YEAR _____		1st semester 2nd semester					
1st Inspection _____		committee members _____							
2nd Inspection _____		committee members _____							
3rd Inspection _____		committee members _____							

Classrooms, Corridors, Misc.					Toilets						
No. 1 - Inspection dates					No. 2 - Inspection dates						
Credit percentage					Credit percentage						
	1st	2nd	3rd		1st	2nd	3rd		1st	2nd	3rd
Furniture	2				Stools	4					
Floors	4				Urinals	4					
Walls	2				Odors	1					
Blackboards	2				Partitions	1					
Doors	2				Walls	2					
Windows	3				Windows	1					
Shades	3				Metal (Brass & Ni)	1					
Drinking Fountains	4				Doors	1					
Lavatories, Etc.	4				Entrances, Etc.	1					
General Neatness	4				Floors	4					
TOTAL	30				TOTAL	20					

Grounds and Sidewalks					Furnace Room - Heating Plant						
No. 3 - Inspection dates					No. 4 - Inspection dates						
Credit percentage					Credit percentage						
	1st	2nd	3rd		1st	2nd	3rd		1st	2nd	3rd
Appearance (Gen'l)	4				Temperature	5					
Lawn	1				Boiler Condition	5					
Playgrounds	1				Gen'l Condition	5					
Hedges	1										
Shrubbery	1										
Walks	1										
Appearance (Bldg.)	2				TOTAL	15					
TOTAL	10										

Janitor's Cleaning Tools & Material					Personality of Care-Taker						
No. 5 - Inspection dates					No. 6 - Inspection dates						
Credit percentage					Credit percentage						
	1st	2nd	3rd		1st	2nd	3rd		1st	2nd	3rd
Adequate Stock	2				Attitude toward						
Types suited to needs	2				School Authorities	4					
Properly Used	3				Att. toward pupils	4					
Care of Tools	3				Att. toward work	4					
TOTAL	10				General Neatness	3					
					TOTAL	15					

GRAND TOTALS 100	AVERAGE
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The Paragould Score Sheet is based on one found in Community School Building Problems by Carpenter and Viles, changed to meet local needs.

This simple score sheet permits the school board and the school executives to note the improvement made in the care of school buildings.

torial staff in the Paragould schools. Time is allowed for repair work, and all emergencies are taken care of as they arise, regardless of the schedule. In the main, the plan of work is as laid out and is followed strictly.

The School-Building Service Contest

Without a doubt, the thing that has been the surest guarantee for a desirable educational environment is the "school service contest" which is carried on each year among the schools. The school winning the highest score receives special recognition in the commencement edition of the school paper which carries pictures of the staff and buildings of the winning school.

The contest consists of a complete checking of the building and grounds by a visiting committee composed of the custodian, the building principal, and the superintendent. A "Score Sheet" made up by the administrative staff is used. These inspections must be approached in the proper mental attitude and given according to the following rules:

1. Constructive criticisms are what we seek.

All parties must understand this and accept criticism in the helpful spirit intended.

2. The three inspection tours to be six weeks apart to cover one semester. First inspection to be made by committee of its own school (composed of janitor, principal, and the superintendent of schools) in order to point out improvements needed. On subsequent inspections the committee will rotate to other schools as the scoring committee, for comparisons in scoring, and to give all committees an opportunity to see what is being done in other schools.

3. All six divisions of the inspection should be completed the same day.

4. The perfect score is given in the "percent" column.

5. The school winning the greatest number of points for the year is declared the winner.

A copy of the score sheet is included in this article. It is not submitted as a perfect score sheet but it forms the basis on which the janitorial staff can plan its work.

Despite the fact that much can be said against a contest as fitting into the modern

philosophy of education, this contest has proved quite successful in this local situation. The merits of it are that every child in the school, every teacher and principal, as well as the janitor, can enter into it and that definite standards for a well-kept building are set up. The score sheet can very easily be used within the school to compete against its own score of previous years.

School-building service in the Paragould schools is improving, due to the fact that the teachers, janitors, and administrative staff have realized the very important place it occupies in the educational development of the child. This improved service has come to the Paragould schools at no increased cost. The efficient service which the janitors are giving has meant for them, however, twelve months of work per year instead of nine months as they had previously served. The three additional months give them time for repair work on furniture and minor building repairs as well as maintaining beautiful school grounds which the entire community enjoys through the summer months.

Thus, school-building service has become an integral part of the school program and is contributing greatly in the development of the aesthetic senses, care for public property, health, safety, and many other qualities which are considered essential.

THE COST OF DEBT SERVICE

In a recent memorandum to the board of education at Grosse Pointe, Mich., Supt. E. R. Van Kleeck called attention to the injurious results of a high debt service. He said:

"Previously, we have emphasized that Grosse Pointe gets only one third of the real estate tax money raised in the township (32.7 per cent). What do we do with a dollar after we have it in the school district treasury? This year we are spending over 31 cents of it for debt service alone! In other words, we have less than 69 cents left out of every dollar for operating. About 47 cents of this is spent for instruction, leaving roughly 22 cents of every dollar for such other purposes as administration (general control), plant operation, plant maintenance, auxiliary activities, fixed charges, capital outlay, and the school district's five public libraries. Except plant operation, all of these and also instructional service get smaller proportions than is usual in school systems, for the reason that debt service gets such a large share. Debt service has to have nearly one third of all the money because, as you know, enrollment increases have been so unusually rapid that the building which would take the ordinary community half a century or more has been in Grosse Pointe condensed into ten or fifteen years. Plant-operation costs are unavoidably high in Grosse Pointe because the long narrow shape of the district necessitates smaller and more numerous elementary schools with higher unit heating and janitorial costs. (Our parents and public also favor and desire a more thorough attention to cleaning and other aspects of janitorial service than do those in many other communities.)"

THE PRINCIPAL'S PRINCIPAL JOB

In this new school, the principal's job is essentially that of teaching. He is a vicarious teacher of pupils; a teacher of teachers, of parents, of the public. He will do well to bring to his leadership the best teaching method that he knows; to remember that teaching is the cultivation of growth, not a stuffing process; that his main contribution is to capitalize the latent resources of his school community; that he must be humble enough to learn from pupils, teachers, and patrons; strong enough to lead.—*Worth McClure, Seattle.*

School-Board Members

Who are Making Educational History in American Cities

HERBERT J. HOFFMANN President, Board of Education, Dubuque, Iowa

The city of Dubuque is proud of its school system, and of its board of education. This up-to-date midwestern city, one of the oldest west of the Mississippi River, has approximately 43,000 inhabitants.

Herbert J. Hoffmann, a distinguished lawyer of Dubuque, heads its board of education as president. Of one of Dubuque's oldest and



Mr. Herbert J. Hoffmann
President, Board of Education,
Dubuque, Iowa.

most highly respected families, Mr. Hoffmann is justifiably proud of the fact that just twenty years before he took over the gavel as president of the board, his own father surrendered the same gavel. In the interim his brother, Alois M. Hoffmann, a mortician, also served on the board.

Born in the city of Dubuque, August 2, 1893, the son of M. M. and Mary Voelker Hoffmann, Mr. Hoffmann brings to the position of honor he occupies, qualifications of the highest order. He received his early education in the Catholic school system of Dubuque, had three years' Arts at Loras College, formerly Columbia, at Dubuque, and completed his legal education at Iowa University with the degree of LL.B. in 1917. Mr. Hoffmann has the distinction of being one of the 26 graduates of the State University of Iowa who received their degrees at the only foreign commencement exercise this university ever had. This exercise was held in June of 1917 at Minnehaha Falls, Minn., within a stone's throw of Fort Snelling, where Mr. Hoffmann was then attending the first officers' training camp in the world war. He served throughout that war as an infantry officer, spending one year in France.

He is a member of the law firm of Kenline, Roedell & Hoffmann of Dubuque, one of the oldest law firms in Iowa; he is also a member of the legal fraternity of Phi Delta Phi.

His interest in the field of education is not confined to his membership on the board of

education of his native city. For the past seven years he has been a member of the Iowa State Board of Bar Examiners, and has also given lavishly of his time and energies in this field of public service.

The crowning glory of Mr. Hoffmann's administration as president of the board of education of Dubuque will come in the late spring of this year, when there will be dedicated in his home city, four beautiful modern new school buildings, costing approximately a million dollars. One of the most active public-spirited citizens who made this building program possible by his sincere efforts, his personal appeals to his fellow citizens, and his firm conviction that the best in the field of education is the need of our children, it was greatly through his efforts that this splendid program was made possible.

Mr. and Mrs. Hoffmann are the parents of four children, one son and three daughters, who are enjoying the opportunities of the best education available, thanks to the almost limitless interest of their father in that field.

THE BOARD OF EDUCATION OF PERU, INDIANA

The Peru, Ind., Board of School Trustees, has adhered to progressive policies in the conduct of the school system of Peru. The official guidance is of a high standard; thus the school system excels in character, leadership, and culture. Under the guidance of these able and competent board members, who employ a splendid teaching force and an able superintendent who holds to these high ideals and standards of service, the Peru schools have advanced and are outstanding in the state.

The president of the board, Mr. William A. Hammond, has behind him a splendid record as a leader in public affairs. He served as a member of the Indiana legislature, as a representative of Miami County. Later, he became mayor of Peru. His activities in business and social life are many and varied. He



Mr. W. A. Hammond
President, Board of School Trustees,
Peru, Indiana.

is the head of an important business firm and a charter member of a local home savings and loan association, and has been its vice-president for the past twenty-nine years. He is identified with leadership in the most important civic and character-formation organizations of the community.

Thus, while Mr. Hammond has many interests, the greatest of these is his loyal concern in the cause of public education. He has a splendid record of civic service, having filled positions of a public nature, and possessing a rich experience in all that is implied in useful citizenship. He has been interested in child-welfare work, and has given leadership to a building program which has provided excellent facilities for the youth of the city of Peru.



Mrs. Grace A. Hawley
Member, Board of School Trustees,
Peru, Indiana.

He was born in Armstrong County, Pa., November 13, 1864, and received his education in the public schools of that state.

The record of Grace Armitage Hawley (Mrs. Harvey Hawley), as a member of the board of school trustees of Peru, is outstanding. She has taught in the local grade and high schools and holds a degree granted by DePauw University. She taught in the Peru High School from 1903 to 1918.

Her community activities included the local parent-teacher association, franchise for women, the League of Women Voters, and identification with the American Association of University Women.

Thus, Mrs. Hawley is another well-qualified member of the local board of school trustees. Having served as a public school teacher she is able to voice the problems and viewpoints of the classroom. On the other hand, she has the view of a mother with children in school—a boy attending Purdue University, and a daughter attending high school. Mrs. Hawley has taken an active part in the civic activities of the city being interested in all types of community welfare and progress.

THE WINNETKA CLASSROOM

Lawrence B. Perkins¹

Democracy has found itself in strange places before—but none more than in the solution of a technical problem in classroom planning. Reversing the frequent procedure of calling an expert out of his ivory tower to pronounce the latest dictum, the Winnetka Ill., board of education asked recently for full collaboration between the administrators, the architects, the board, and above all, the people who were going to use the new building. Every teacher in the system, and even the children, have contributed to the new school—detail, criticism, and suggestion. The architects enjoyed an incomparable privilege in being brought into contact with problems not mentioned in any of the textbooks on school planning.

The problem was to design a classroom around a child—instead of around a series of rules about light and ventilation. Light, ventilation, heating cost, and price per cubic foot are all very well—but not ends in themselves. Neither is the classroom or the building as a whole. However, provision of cheerful, colorful childlike surroundings which intensify the effectiveness of the teacher's job are well worth doing. It is hard to prove value in beauty—but few doubt it. No one doubts the need of adequate physical provision for the requirements of modern teaching.

One general principle weathered the storms of discussion and argument. It was that children of primary-school ages are not ready for participation in groups larger than a class unit. They simply cannot comprehend and be loyal to a social setup of that complexity. Therefore, the class unit should be as complete a home as possible. It should have its own front door and its own yard. The children should be responsible for them. It should be close to the ground. Flowers and shrubs should be part of the room itself by being close to low-silled windows. The room should have the same relation to group assets, such as play-rooms, auditorium, library, shops, and the rest, that homes do to their community facilities: independent, but accessible!

A one-story building with units which could be lighted from two sides was the clear answer. Common sense and temperate-zone climate forced this compromise between the isolated cottages that our principle suggests, and the compact institutional box which is economical in money at the expense of education. The Winnetka group aimed at a building that could be well heated and conveniently administered and still preserve the individual groups from submersion in a regimented whole.

Light coming from two sides of a room is not only abundant and well distributed, but it permits several architectural improvements in the traditional classroom. Most important of these is to bring the ceiling down to residence scale. Nine feet seems more appropriate than twelve, for people few of whom are five feet tall. Modern unit ventilation makes the lowered ceiling acceptable, and the heating system is benefited. Nine feet has permitted liberal use of wood in simple areas to do double duty as decorative wall surface and bulletin board. However, none of these considerations weighted more heavily than the clear improvement in appearance. No one in the group had ever seen a classroom with the walls well handled. The best were futile at-

tempts to camouflage the height with wainscots and trim.

In solving the plan problem, seven factors were weighted and evaluated:

Seven Important Factors

Seating. First of all, the places for each child to keep his things to write, read, and drill. This was well enough solved by the old rows of fixed desks and seats when teaching was feeding and regurgitation, and recess periods and a weekly art lesson. The group felt that concepts of cooperation as opposed to authority would be better served by less stiff arrangements where children are face to face with each other. Physical arrangement would help to overcome the teamwork of thirty youngsters trying to outwit their teacher. The agreed answers were three—no fixed desks, ample space to permit freedom of arrangement, and light from enough directions so that a desk would be well lighted in several positions.

Story-Corner Class. The entire class gathers for stories or committee meetings. Most of the children, and frequently the teacher, sit on the rug or on benches to discuss things related to their studies and the world in which they are already citizens. The ideal spot is perhaps an alcove or bay, but the group agreed that the same space, added to the room area, would serve more purposes. So the corner where the windows meet, with benches below the sills, has become the story alcove.

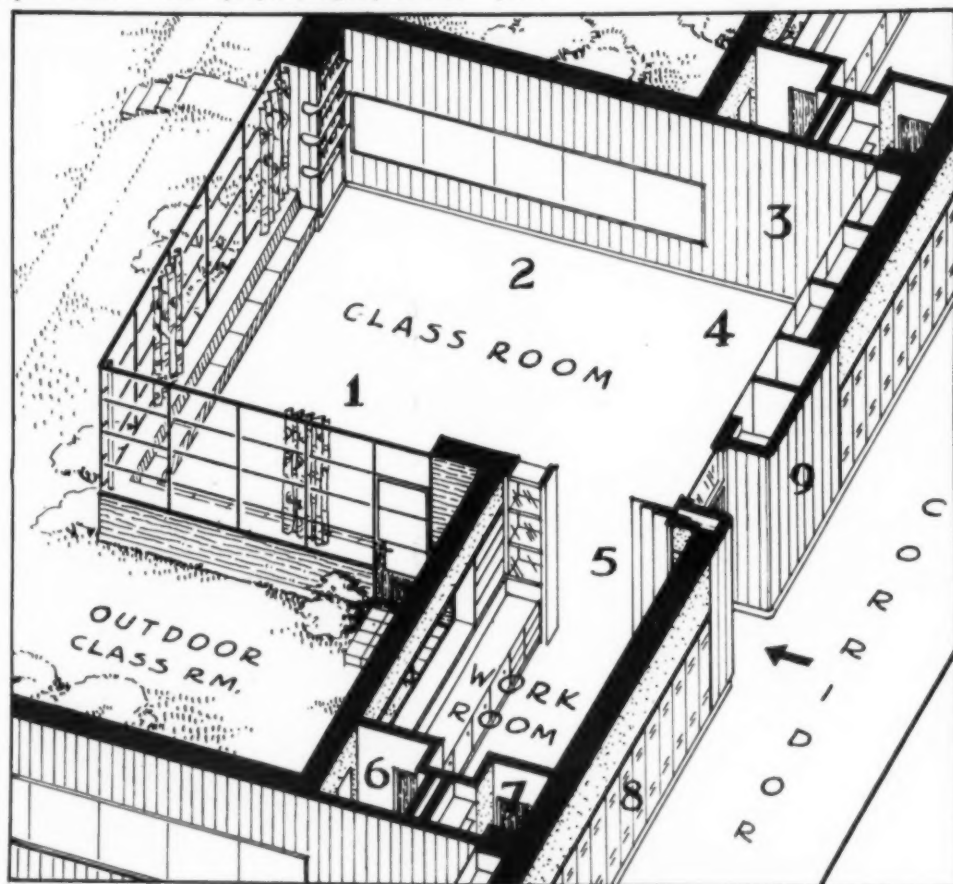
Project Area. Six-year-olds make and run a post office as their project; eight-year-olds

build pueblos to study the primitive culture of the American Southwest; grocery stores and clipper ships make contact with the worlds of today and of yesterday. The requirement?—Simply space. Not necessarily the best space so far as lighting is concerned, but near to the supply closets, and out of the way of people coming into the room.

Workroom. These group enterprises are the result of each child's contribution. A part here, a piece there, made and brought from the workroom to help build up the whole. This suggested that the group enterprise and the workroom be located close together.

This is by no means the limit of uses for the workroom. It is a place where a boy can go to make a boat or an airplane that he alone is interested in. The sliding doors cut off the sound, although glass in the doors permits supervision without snooping. Small groups can use the workroom for quiet study, or it can become the stage for little dramatic sketches. The equipment to be provided in all rooms—subject to some variations—includes a workbench, running water, provision for tools, and spaces for each child to keep the dolls and fire engines he personally possesses.

Clothing. The group felt confident that eight-year-olds and older could take care of their clothes in individual corridor lockers. Opinion divided on the first and second graders, so a compromise was reached which gave them a dead-end corridor used as a long dressing room with individual lockers, but group locking. Opinion came together again on the kindergarten and nursery facilities; i.e., open compartments around the perimeter of a square dressing room. Snowsuits are pulled on by sitting on the floor and tugging, obviously inconvenient in the long narrow coat rooms or the wardrobes of the none-too-distant past.



The new classroom contemplates a maximum of light and the ready supervision of all activities in the classroom, the workroom, and the outdoor classroom.

¹Architect, Member of Firm of Perkins, Wheeler, and Will, Chicago, Ill.

Toilet. Individual room toilets were considered in comparison to larger toilet rooms serving the entire building. While cost entered more into this deliberation, the arguments in favor carried the day. They were: (1) more effective supervision; (2) conservation of time by eliminating the trip down the corridor so frequently an excuse to hide boredom; and (3) a closer approximation of residence conditions with which all the children are familiar. For the sixth-grade boys and girls, separate toilets were provided, but below that age level it was considered an educational asset to ignore differences as much as possible.

Storage. There was no difference of opinion about storage space, except as to what constituted "enough." The group agreed to settle for triple the usual amount, and got it. Provisions, which perhaps should have been taken for granted in any design but still emphasized, were (1) file drawers with locks for teachers' records and (2) bins to accommodate large sheets of paper. Bookshelves, toy storage, supplies and teachers' closets were required and provided.

True Gains from Collaboration

Of course, the group, consisting so largely of teachers, wanted and got acoustically

treated ceilings. Saving wear and tear on both teachers and children more than justified this expenditure.

Artificial lighting presented problems. The low ceilings made the usual methods unsuitable, and the final choice was direct lighting from concealed sources in the ceiling. This gives economical operation and the greatest light intensity at the desk level where it should be. This system can be adapted to use either fluorescent tubes or reflector-type incandescent bulbs as the light source. Incandescent was chosen on the basis of first cost, but fluorescent was given careful consideration as it will possibly be the basic lighting element of the near future.

Collaboration of the sort achieved here is certainly one of the significant things about the Winnetka unit. If nothing more than a few improved details came out of the effort, the time spent would have been of doubtful value. The real gains seem to be three: (1) the understanding and enthusiasm of the people who are to use the building; (2) their experience in creative thinking toward a tangible end; (3) their help in creating an attitude which will keep alive the search for better ways to house school children.

A Summer-School Class Speaks Up

Jairus J. Deisenroth¹

The realization that full-grown men in summer graduate school would appreciate appointment to school jobs paying \$1,300 per school year served to set this writer to thinking about the reasons that prompted these men and others to take time for summer-school study. As a result of several conversations with members of his class in Pennsylvania State College during the summer of 1939 the writer felt the need for a searching of the motives that make men want to earn advanced degrees. The following report is the result of the study.

The class, which studied school administration, consisted of 21 men. Nineteen of these men were good enough to return unsigned answers to questions put them by the writer. All but one of these men were directly interested in obtaining positions as principals or superintendents; some are now serving in such positions; the others would like to have the chance so to serve. All of the men, naturally, accepted at face value the increase in knowledge received in summer school. But their main purpose, at least for the majority, was to get promotion, to make some progress in administrative work.

Other reasons for taking advanced courses were those of satisfying certification requirements, "keeping up with the Joneses," and taking the easiest course.

Costs Other Than Fees

All of the members of this class were of the opinion that the cost of summer-school training is high. To the lay mind the school-catalog statements about costs suffice. But to the fellow attending summer school year after year, and for periods as long as twelve weeks at a time, the whole story is not written on the pages headed "Fees." To this must be added the costs of living, providing for the family either at home or at summer school, incidentals as typing fees, extra books, travel expenses, and many other items often for-

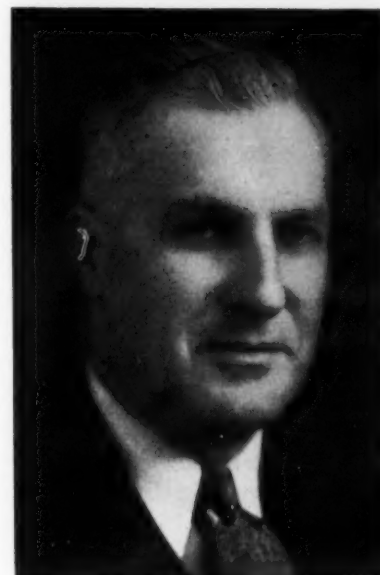
gotten when planning to attend the school. A still more important item to be included in costs is that of "hidden charges," so called, meaning costs which may come up at some future date, and with some annoyance.

What are some of these costs? The men reported that they could have used the money spent for their own professional development in many other ways. They listed such items as "could have invested it in a business with a friend," "needed the money for dental work for all of the family," "should have used it to repay family for loans made," "needed this money to pay on house we are buying." You can see how the summer sessions cut into such items of living. Then, too, we must consider the complaints of men who indicated that they and their families have not had a "real" vacation in years; others who assert that they would prefer to attend some "workshop" in education, where something practical could be picked up for their own teaching improvement. These costs serve to pull down any high morale that professional advancement may have created at the beginning.

Cost of a Master's Degree

The actual cost of buying a master's degree at the average state institution was estimated to be somewhere between \$600 and \$800. For the summer of 1939 at Pennsylvania State the average class member spent about \$20 per week if living alone, and \$30 per week if he brought his family along. You can see that this means a large expenditure per summer, especially if the courses run into periods as long as ten to twelve weeks. Whether or not this is too high a cost is a question for the individual student to decide. But for men who would jump at a chance to change to a \$1,300 position it does seem that the cost is too large a proportion of the annual salary.

There must certainly be a distinct relation between the ruminations about cost and the



Harold J. Williams
Superintendent of Schools-Elect
Fort Dodge, Iowa.

Mr. Williams, who has been superintendent of schools at Spencer, Iowa, during the past seven years, has been elected to succeed Mr. K. D. Miller at Fort Dodge, Iowa. Mr. Williams has been responsible for the thorough reorganization of the Spencer schools and has been particularly successful in developing a school-building program. His experience as an educator has been gained in Iowa village and city schools.

declarations about the results obtained. The men were questioned as to the beneficial results of their graduate work to date. Nine of them reported simply "none." That, of course, is pessimism of the rankest type. One man said he was merely adding another item to be placed in his obituary! Another said he was earning "paper" credit, and still another stated that graduate work served to show him the inefficiency of modern education. Seven men were appreciative of the new points of view obtained in graduate summer school; and one was "hopeful" of good results, evidently being a more cheerful type of person!

Guidance Needed

Administrators and school-board members ought to consider the situations of these people in their teaching corps who are spending so much money to earn advanced degrees. Are they wasting their money? Are your schools utilizing the new learning these men and women are acquiring? Does the community appreciate the effort made by their teachers? Does your superintendent or other administrative head make a place in his organization for these more highly trained people? These questions should be answered by those in control of the schools if they are to render to the teacher the recognition he seems to require.

On the other hand it must be realized that the spark of ambition burns too brightly in many of our young men. They have long considered the principalship or the superintendency the upper goal of their teaching efforts. School boards and superintendents might well offer some guidance in this instance, showing that the field is pretty well filled at present, and that possibly more progress can be made if these men will take advanced degrees in their own teaching fields. Thus the history man will get his M.A. in history and the science man in science. Then if your schools cannot hold these men, they are equipped to go out for positions that pay them more both in salary and in recognition.

¹Principal, Bennett School, Piqua, Ohio.

THE AMERICAN School Board Journal

Edited by Wm. Geo. Bruce and Wm. C. Bruce

Where Tenure Fails

THE border-line incompetence of a very small percentage of teachers in large and middle-size cities causes the superintendents and school boards an unwarranted amount of trouble and annoyance. Each spring when the revision of the lists of teachers is about to be made, these individuals are reported by the principals and supervisors, and dismissals or transfers or changes in the character of work are recommended.

The causes of inefficiency are as varied as the individuals themselves, and they are particularly difficult to deal with because of the personal, political, legal, and even professional pressure that is brought to bear upon school executives and school-board members. It is rare, indeed, that such cases can be decided upon their merits after the friends and well wishers of the teachers start their barrages of public sympathy, their charges of prejudice, and their appeals through influential persons of all kinds. When such a storm breaks, it is no wonder that the average school executive throws up his hands, and takes refuge in some plausible excuse for restoring the individual teacher to her classroom.

In each such case, just one matter of public interest is forgotten—the thirty or thirty-five children whose next year of education will be largely ruined, whose school year will be forever wasted, and whose ideals of life and attitudes toward study and work will be directly harmed. The ultimate responsibility here rests on the school boards. Courageous action carried on without publicity where possible, is the only solution of the problem.

The Status of School-Board Minorities

THE public press in reporting the proceedings of school boards occasionally refers to the majority or minority blocs or factions who stand in a contending attitude toward each other. The uninformed citizen who learns that the members of a board are lined up in factions becomes somewhat puzzled as to the expediency of such a condition. He naturally asks to what extent the voice of the majority is controlling, and whether the minority is merely ineffective opposition. Again, he frequently wonders whether a departure projected by the minority and voted down by the majority is not meritorious.

So long as the administration of a school system is wisely conducted and has the ultimate welfare of the children and of the community in view, it is difficult to understand the possibility of rather rigid or continuous group alignments in the board of education. In decades past when the representation on the board was according to wards or districts, it was natural for the members to promote their respective sections of a town, regardless of any other ward or neighborhood. So, too, in the days when the choice of board members was part of municipal elections and the names appeared on the ballots with party designations, it was inevitable that the party machines should command a certain amount of loyalty. But most communities

elect the members of the board at large and the individuals are expected to represent the whole community and to promote the educational welfare of all the children of all the people. It may be questioned whether any present political party, even if it boasts a label that implies the most progressive type of social program, has a monopoly on truly progressive ideas.

At most, factions in school boards must be of the most temporary type and must be subject to constant change and adjustment. An individual member may be naturally conservative; he may even be reactionary. Another member may be inclined to listen too closely to the disgruntled taxpayers' groups. Still another may have leanings toward the interests of labor, or of a certain important economic or religious group. Inevitably each member will have a more or less well-defined philosophy of life which provides principles of action, but it is difficult to see that these will permanently and rigidly align him on most or even a considerable number of educational problems and of general school policy, provided he wishes to retain his personal and official integrity and maintain his self-respect and the respect of the community.

On reflection it would seem that a board of education cannot split into minority and majority factions, unless the members are guilty of chauvinism which is wholly un-American. Where there is any clear understanding of the purpose of the schools and a loyalty to the fundamental ideals of democracy, every member must have an equal voice in board deliberations. The intrinsic value of proposals must be the basis of their acceptance, and support must come without consideration of personal pride or ambition of members or the recognition of groups and factions.

Irregularities in the School-Administrative Field

THE violation of a sacred trust, public or private, is bound to cause pain and resentment in a thoughtful citizenship. But when persons entrusted with the administration of the public school affairs become derelict in their duties and engage in dishonest actions the situation becomes doubly regrettable.

At the outset, it must be stated, however, that the derelictions which have become known in recent years are chargeable to the nonprofessional officials and employees rather than to the professional workers. Only one notable case where a schoolmaster defaulted is on record.

Some years ago, one of the outstanding and popular school superintendents in the middle west yielded to the lure of speculation and came to a sad ending. The school funds entrusted to his care went into his financial ventures, with the result that he ended his career in the penitentiary. Others enjoying positions of public trust in the school field have yielded to the same temptation with the result that eventually they suffered a downfall which wrecked their lives. While this case is still within the memory of schoolmen of today, it remains singular and exceptional.

The scandal which broke out in Oklahoma City last year revealed a defalcation and other irregularities which exceeded the half-million mark. The guilty were nonprofessional school officials. More recent are the St. Louis school scandals. Here the superintendent of schools, entrusted with a large trust fund, not within the authority of the school board, is charged with having gained and lost through investments in speculative

stocks and bonds. The school system itself lost nothing. So far, one official connected with the business department has been found guilty of benefiting from the sales of waste materials and is serving a prison sentence. Another under suspicion committed suicide. A banker member of the board resigned to escape the criticism that he is making loans to school people. Another member under suspicion of having used the prestige of his office for private business has been requested to retire. No dishonesty is charged.

In the field of public service those in charge of education are usually regarded as persons of exemplary character and of splendid ability. Of all public officials, they are supposed to set the pace in administrative efficiency and in demonstrating a high sense of honor in all their dealings. The disclosures made at Oklahoma City and St. Louis come as a great shock to the people of the respective communities and to school people in general.

The regrettable feature in these eruptions in the school field is found in the fact that not only an entire constituency is apprised of wrongdoing, but also that the school children are informed of the shortcomings of those who are recognized as leaders in school-administrative affairs. The example set by defaulting school officials is by no means an incentive toward that character building which is so essential to the rising generation.

Fortunately, the school interests of the United States are in the hands of men whose honor cannot be questioned. Here and there the charge is made that nepotism and political manipulation is being practiced, but even these charges apply in singular and isolated instances only, and do not apply to the great rank and file of school officials.

School Accidents

IN POINTING out the gross unfairness of a legal policy which gives school districts in 45 states complete immunity from suits for negligence, Harry H. Rosenfield, of the New York City school system, rendered a real service to the school children and to public welfare. No one has ever been able to explain satisfactorily the morality of the state laws and court decisions which compel injured persons to bear the entire pain and loss of accidents which have occurred on school property and which may be attributed to the carelessness of the school authorities. The classic cases represent a vast amount of suffering, of physical harm which continued through the adult lives of young people, and of reduced economic and social effectiveness. And the great majority of the cases represent, too, vast indifference of school boards toward this suffering. As Mr. Rosenfield remarked, "public policy would require that the community as a whole attempt to return the injured person to as near sound condition as possible, instead of permitting him to languish in crippled uselessness for life."

In New York State only, the courts have come gradually to the view that the state has an ethical responsibility, and that it should be legally liable for its own negligence and that of its officials. In two western states, California and Washington, the problem has been solved by direct legislation. It is true that these laws have entailed much litigation, and some of it, unfortunately, has been inspired by the hope of easy money to be awarded by sympathetic juries. But we shall never be able to say that the states and their school districts

are fair in meeting their responsibility for accidents until they uniformly remove the immunity which they now enjoy with such dubious results.

School-Board Alumni

IN Ann Arbor, Mich., more than twenty-five former members of the city board of education recently met at dinner and formed the "Association of Former and Present Board-of-Education Members." The meeting which was attended also by wives of the members, and by the executives and supervisory staffs of the schools, discussed a variety of serious school problems. The leading speaker was Dr. Charles A. Fisher, director of the University of Michigan Extension Division, and a former member of the board, who took up the problem of the high-school curriculum with especial emphasis on vocational training. The occasion is reported to have drawn forth a variety of reminiscences on past school-board days. Not the least of the discussions centered about current financial problems. The group elected officers to insure the continuance of the organization.

The recognition which a school-board "alumni" association can give to former board members involves elements of value to any city school system. For there is in such a group a vast degree of civic interest in education, a varying amount of experience and insight into local school conditions, and a great variety of practical judgment on men and affairs. Such alumni as groups, and as individuals, can do much to correct erroneous impressions, to strengthen right public opinion for new undertakings, and to provide a haven of understanding that will put the community and the schools in more favorable relations.

Court Decisions on Teacher Retirement

DURING the past decade there have been 38 court decisions dealing with teacher-retirement cases. These cases hinged in part on points in law and in part on controversies as to the facts. They may be classified according to the main issue involved under the following headings:

(1) Constitutionality of statutes, (2) contractual relationship between the state and members of the system, (3) right to membership, including cases questioning the right of claiming credit for substitute service, (4) proper evaluation of prior service credit, (5) status due to leave of absence, (6) disability retirement, (7) effectiveness of election of benefits, and (8) miscellaneous administrative and financial issues.

The cases came up in the courts of the following states: California, Connecticut, Illinois, Iowa, Montana, New Hampshire, New Jersey, New York, North Dakota, Oregon, Tennessee, Washington, and Wisconsin. New York dealt with 14 cases.

An interesting and, at the same time, important question found its way into the Supreme Court of New Hampshire. A legislative bill creating a teacher-retirement system, was presented to the court as to its constitutionality. The question was: Does the proposed retirement law violate any features of the United States Constitution, or of the constitution of New Hampshire?

The answer was that the state constitution forbids payment of pensions, except for actual service. The retirement bill, according to the contention of the court, does not violate this provision but is an additional compensation and not a reward or gift.

"SKIP" DAY—AN OPPORTUNITY

Matthew Lagerberg¹

Once upon a time there was a superintendent who lost his job because the Seniors packed up one May morning and motored to the city for the day and part of the evening. This is no fairy tale; this writer is that superintendent. The year was 1932.

There is an atmosphere of revolt about our educational institutions in the spring of the year. All year long classes have convened and adjourned in pretty much the same manner. Only the basketball games with the near-by schools have given the "inmates" opportunity to let go on somebody. Then comes spring. Nature starts over again suggesting that we go and do likewise. New Year's is an illogical time to turn over that new leaf.

In this atmosphere the seniors of our small high schools are placed each year. Time begins to hang heavily on their hands. They feel that they have vastly outgrown their small society. They cast sidelong glances upon the freshmen, mere squirts of human beings desperately serious about their lessons. Here are the seniors, young men and women 17 to 20 years of age, who have done exactly no exploring as yet, have discovered exactly 0 new worlds, at their age!

On the said May morning in 1932 the seniors, 27 of them, had "skip" day. It was not a strike or walkout, for the superintendent and his wife "skipped" too. The day having been rather indefinitely planned a week in advance, it was an exciting event. The lower class pupils came to school with long faces; some didn't come at all. The filling-station attendant at the corner beamed; he sold 32 gallons of gas in one sale! But across the street was another gas station, the owner himself being there in ugly mood and peering through the glass at the high-school seniors skipping school. He happened to be the steering wheel for the president of the board of education. This official felt himself indirectly responsible for such insubordination and—the superintendent was fired.

Educationally a Success

The day proved to have been completely misnamed. Contact was made with the Chamber of Commerce of the big city, and a busy day of visiting industrial and power plants, newspaper offices, bakeries, ice-cream factories, was scheduled and carried out. What was locally interpreted as a "skip" day, turned out to be an educational excursion. The students came back almost astonished at the amount of practical knowledge painlessly obtained, of the world at work. The vocational value of the excursion could not be measured, but it must have impressed the youngsters of the need of seriously choosing their vocation in which they would be happiest.

The small high schools in our rural state have adopted the annual excursion or field trip as a privilege of the senior class. They have done so by popular demand, by force of habit, or just because it seems to be in the "air." "Skip" day is a colloquial and rather unfortunate term given to the excursion which officialdom is rightly trying to cover up. A challenge, nevertheless, is thrown out to the Chambers of Commerce in the cities of our rural areas, and to the colleges also, to help

us direct this tendency to greater educational value. Assemblies and long, dry speeches on vocational guidance or any other subject are ruled out. That is exactly what the class is running away from.

They want expertly guided trips to the industrial world at work. They value a nickel treat at about \$10 each. They don't object to being lectured to at some length in a noisy factory, but keep away that schoolroom atmosphere and those seats. They want an item in the paper containing their names, to show folks at home that they have been in town, or a mention or dedication on the radio dinner program. One must not neglect to mention that they want that show to top off the hard work done during the day. As administrator of small high schools in rural areas for many years, I should like to ask our neighboring cities and colleges if they will meet this challenge? I can guarantee that all they do for the seniors is appreciated far more than they suspect and that it will pay big dividends in good will and social well-being.

Some Worth-While "Skip" Days

We might consider some specific cases: in Bottineau County, on the Canadian border, one senior class, and perhaps many of them, took their excursion to Winnipeg on the occasion of the visit of the King and Queen of England to that city. Before returning you can be sure they had "made" all the places of interest in the city. This one class which I have in mind, made a three-day excursion. Another class in Williams County, and this might also be representative of many others, have for many years taken an annual three-day excursion to the Badlands following the close of school. Since that fateful day in May, 1932, I have accompanied my senior classes on one-day excursions to our nearest city,

without such disastrous consequences. Perhaps we have learned to buy our gas at the right places. My experience has been that the behavior of the classes on these trips is surprisingly good. I have never had an accident in motoring or in the visitations, but this is taking it for granted that plans are made beforehand. My experience has also been that at least a skeleton plan *must* be drawn up in advance.

The possibilities of using this excursion in classwork seems almost unlimited. As a rule the students are in a better frame of mind to receive writing assignments after the trip than before it. But if one has a good idea of the places scheduled on the visit, it can be anticipated in connection with a number of subjects—science, government, home economics, etc. Many lessons on the manufacture of fuel gases in chemistry that are rather hard to get across, can be postponed until a visit is made to the gas house. I am sure that teachers and students living in larger cities fail to realize the need for this kind of practical knowledge by the small rural high schools. Here it is that education ought to be made most practical because few students are able to continue their education after high school, yet here is often where there is nothing but textbook education and little or no training for lifework.

Parents are in hearty accord with the senior "skip" day; they were 100 per cent in accord in May, 1932. The morale of the school is little affected by the exodus because it seems to have grown into a habit, and lower class pupils merely wait their turn.

A more ideal excursion, of course, is the single class excursion where the interests are similar and a study is made of something in line with the classroom work. The senior classes have girls and boys of many and varied interests. Many of these are dragged around to places where they are not anxious to go, but as a means of securing cooperation and unity in a small community by satisfying that spirit of revolt or exploring our world about us, I recommend to administrators the use of "skip" day to perform a final and useful service to the graduates of his school.



The Board of Education, Auburn, Maine, is Entertained.

Previous to its regular April meeting the board of education at Auburn, Maine, was entertained at dinner by the home economics class of the Walton Junior High School. Members of the board from left to right are: Maynard W. Moulton; Ray H. Thayer; Superintendent George Gardiner; Eugene H. Thibault; Galen I. Veayo; Frank W. Winter, a guest; Mayor L. Kenneth Green; F. Owen Stephens; C. Ray Thompson; J. B. Cloutier; Earle M. Chesley; Ralph W. Parker; Edwin M. Adams.

¹Superintendent of Schools, McClusky, N. Dak.

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School Board News

CONDUCTING SCHOOL-BOARD CLASSES

During November and December, 1939, and two weeks of January, 1940, the Commissioner of Education of Connecticut, Dr. Alonzo G. Grace, personally conducted a class for school boards in Eastern Connecticut. The student body included the boards-of-education members of ten towns, and in addition, many selectmen and members of finance boards of the ten towns.

The series of meetings was devoted to the powers and functions of the state board of education and the local boards of education; personnel problems, including methods and procedure in selecting teachers; supervision, vocational education, the educational program, transportation, and many other items of consequence.

While the classes were somewhat experimental, Commissioner Grace is convinced that they proved profitable to all who participated in them. It also demonstrated a type of service which a State Department can render upon an effective basis.

So impressed was Commissioner Grace with the consistent attendance on a voluntary basis, in good weather or bad, that he awarded personally to several boards of education, as meritorious members of the conference, an annual subscription to an outstanding school-administrative magazine as the best possible recognition.

PUEBLO'S EFFICIENT BOARD OF EDUCATION

Pueblo, the second largest city in the State of Colorado, is unique in that the Arkansas River divides the city into two separate school districts. School Dist. No. 20, the larger of the two districts, is located on the south side of the river. The district was organized in 1872.

The present board members are E. A. Bloomquist, president; Elmer J. Easter, vice-president; Walter W. Johnson, treasurer; Dr. John B. Farley; and R. D. Landis.

Mr. Bloomquist is an engineer on the Denver and Rio Grande Railroad. Mr. Easter is cashier of the New York Life Insurance Company. Mr. Johnson is in the insurance and real estate business. Mr. Landis is secretary of the First Federal Savings and Loan Association, and Dr. Farley is a practicing physician and surgeon. Mr. Bloomquist, Mr. Easter, Mr. Johnson, and Mr. Landis have sons or daughters in the high school.

Miss Olga A. Hellbeck is secretary. She is the vice-president of the Public School Business Officials' Association of Colorado.

Supt. Ray E. Redmond is a product of the district over which he so ably presides. He attended the grade schools of the district, and was graduated from the Central High School. He received his degree from the University of Denver. After teaching in the history department of the Central High School he was made principal of the Keating Junior High School, and of the Carlisle Grade School, one of the largest elementary schools of the district. Mr. Redmond was appointed superintendent of schools in 1935, succeeding Dr. J. F. Keating, who had served the school district as superintendent for forty-one years.

For thirty-seven and a half years the city of Pueblo benefited from the service of Dr. Richard W. Corwin, who was a member of the board of School Dist. No. 20 from 1892 until his death in June, 1929. The ramps, or inclines, in the Keating Junior High School, and in the Central High School, which was rebuilt after the fire of 1917, are in the buildings because of Dr. Corwin's insistence that inclines were better in school buildings than stairways.

The table used by the board was made in the manual-training classes many years ago. It was one of the pieces of furniture saved when the high-school building burned in 1917. Manual training was established in this district in 1889. It was one of the first districts west of the Missouri River to introduce manual training as a part of the curriculum, with the exception of the city of Omaha, where it was introduced at the same time as Pueblo Dist. No. 20.

LEXINGTON COMPLETES BUILDING PROGRAM

Henry H. Hill

The board of education at Lexington, Ky., during the school year 1939-40, completed a building program begun in 1933. This included new football bleachers, an addition to the Dunbar High School, a central heating plant for the Dunbar High School, a heating plant for the Lexington Junior High School, and a new Johnson elementary school.

The Dunbar football bleachers and the Lexington heating plant were constructed with current school funds, while the Dunbar building addition and heating plant, and the Johnson school were the third PWA program of the Lexington schools. The entire cost was well above \$160,000, of which the PWA paid 45 per cent. The board's share of the cost was obtained from the sale of the old Morton Junior High School for \$51,000

and from savings in current operating expenses. The cost of all the projects was met without any bond issue, or debt of any kind.

Since 1930 the total amount spent by the board for land, buildings, and equipment amounted to \$1,182,318, of which \$350,000 was received from 1933 PWA bond issue, \$180,000 from the 1937 school revenue bonds, \$355,594 from federal grants, and \$296,723 from current revenues and sale of the Morton Building. At the end of the year 1939, there remained the net sum of \$263,666 due on the \$350,000 bond issue, and \$162,000 of the \$180,000 revenue bond issue, a total net indebtedness of \$425,666 against the \$1,182,318 building program. The principal of the debt is being reduced annually by approximately \$21,000.

The board expects soon to inaugurate a pay-as-you-go policy covering future building needs of the schools. It is hoped through the cooperation of other second-class cities to secure enabling state legislation in 1942 to permit the establishment of a building reserve fund for future additions or replacements. In this fund will be placed the proceeds of the sale of old buildings or sites no longer needed, part of any favorable annual balance resulting from unusual conditions, and the proceeds of a one- or two-cent additional tax levy.

Most cities in Kentucky face a slight decline in enrollment with a consequent decline in state aid. The necessary and desirable creation of an equalization fund for underprivileged school districts will result in further declines in state aid, and possibly some slight increases in local school-tax levies. The pay-as-you-go policy, it is expected, will eliminate further debt and the carrying charges of bonds, and will provide also for the expenditure of a building reserve fund during a time of low costs when work is badly needed. Building needs will be reduced as a result of declining enrollment, and the recent extensive building program throughout the state, but it is assumed that there will always be the necessity for replacing obsolete and unsuitable buildings.

A FIRE HAZARD!

A teacher in the New York public schools weighs 275 pounds, has a stiff knee, and is a fire hazard. President Marshall, of the school board, is reported as saying: "Her physical condition makes her obviously a fire hazard. She can scarcely put on her coat without help, and in a building press she would be bound to slow down the exit of the rest of the school."

A subsequent report states that when a surprise fire drill was held, the pupils left her behind, and were waiting on the sidewalk when teacher finally limped from the building.



Members of the Board of Education, School District Number 20, Pueblo, Colorado.

Left to right: Walter W. Johnson, treasurer; R. D. Landis; Elmer J. Easter, vice-president; Ray E. Redmond, superintendent; Dr. John B. Farley; Miss Olga A. Hellbeck, secretary; Elmer A. Bloomquist, president.

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FREQUENTLY, problems in proper school maintenance cleaning arise to trouble those in charge. The Wyandotte Service Representatives are in daily touch with almost every kind of cleaning; their problem is the same as yours — to achieve the most efficient

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School Law

Consolidation of Schools Valid

Where a notice was sent out by the secretary of the school board, and the notice showed on its face that it was authorized by the chairman, such a notice was deemed sufficient, and an order, passed by the board at a special meeting, consolidating two schools was valid, under a decision of the Supreme Court of Tennessee.¹

A county board of education in Tennessee was vested with discretion with respect to the consolidation of two schools, and the courts will not interfere with such discretion where the board has not acted illegally, according to a ruling of the Tennessee Supreme Court.²

Board Not Liable

Where a school was erected with funds received from the sale of bonds regularly voted and issued for that purpose, and thereafter the school was sold, the school board improperly expended the proceeds of the sale during the fiscal year, proceeds were received for additions to and improvements of other schools without an appropriation having been made, but having acted in accordance with the pronouncement of the Supreme Court of Oklahoma on the subject, the school board may not be held liable in a taxpayers' suit for the proceeds expended.³

Student Cannot Recover Damages

An injured student, who has failed to file a verified claim against a school district for damages within 90 days after an accident, as required by the law, cannot recover damages from the district, though she was incapable of presenting

claim during such period, under a ruling of the California Appellate Court.⁴

Board Not Liable for Injuries of Student

Where a student volunteered to retrieve a pencil dropped through a grate covering a trap door in a ventilating system, and in jumping on the trap door, was propelled to the cement floor 12 ft. below, and it was not claimed that the ventilating system was improperly constructed or maintained, and no liability was placed on the teacher, the State Supreme Court has ruled that the board of education of New York City could not be held liable for injuries sustained by the student.⁵

Teacher's Contract May Not Be Terminated

The purpose of the Pennsylvania teacher-tenure act is the maintenance of an adequate and competent teaching staff, free from political or arbitrary interference, and the Supreme Court of Pennsylvania has ruled that a teacher's contract may not be terminated whenever for any reason, the board deems the teacher unnecessary.⁶

No Cause for Termination of Contract

The Supreme Court of Pennsylvania has ruled that where a qualified teacher has been knowingly assigned to duties for which she was not qualified by her college certificate, the school board may not use her inability to perform those duties as a reason for the termination of her contract.⁷

Under a decision of the Oregon Supreme Court, the purpose of the teachers' retirement act is to create a fund from which annuities may be paid to teachers who retire after long and faithful service, and the legislature has the intention to

afford social security to teachers who have devoted their lives to the teaching profession.⁸

Under a ruling of the Louisiana Appellate Court, the word *office* as used in the teachers' tenure act, refers not merely to a teaching position but to the particular type of teaching position or status a teacher has attained, and a disturbance of a teacher from that position or status is "removal from office."⁹

Teacher Entitled to Reinstatement

Where a teacher had been actively engaged as an instructor for ten years, and for three years had served as principal, and was later assigned to a grade school at a reduction in salary, without charges or without a hearing, she was in fact "removed from office" under the tenure act, and was entitled to reinstatement, under a ruling of the Louisiana Appellate Court.⁹

Board Has Power to Change Duties

Under a ruling of a Massachusetts State Supreme Court, a principal is merely a teacher entrusted with special duties of direction or management, and a school board has power to change duties of teachers in tenure at its discretion.¹⁰

Principal Was Not Dismissed

A principal of a grammar school, serving at discretion, and who with the closing of the school, was assigned to service as a grade teacher at a lower salary, was not actually dismissed since dismissal contemplates a complete separation from the schools, and does not constitute a mere change in rank.¹⁰

Board May Assign Teacher

Any school board which employs a teacher to teach in the public schools has the statutory (Concluded on page 62)

¹Wicklund v. Plymouth Elementary School Dist., 99 Pacific reporter 2d 314, Calif. App.

⁴Gillman v. Board of Education of City of New York, 17 N. Y. S. 2d 551, N. Y. Sup.

⁵Bragg v. School Dist. of Swarthmore, 11 Atlantic reporter 2d 152, Pa.

⁶In re Womer, 11 Atlantic reporter 2d 146, affirming 5 Atlantic reporter 2d 638, 135 Pa. Super. 433, Pa.

⁷Crawford v. Teachers' Retirement Fund Association of School Dist. No. 1, Multnomah County, 99 Pacific reporter 2d 729, Ore.

⁸State ex rel. Bass v. Vernon Parish School Board, 194 Southern reporter 74, La. App.

⁹Ibid.

¹⁰Downey v. School Committee of Lowell, 25 Northeastern reporter 2d 738, Mass.

²State ex rel. Sims v. Reagan, 136 Southwestern reporter 2d 521, Tenn.

³State ex rel. Grimes v. Board of Education of Oklahoma City, 99 Pacific reporter 2d 876, Okla.

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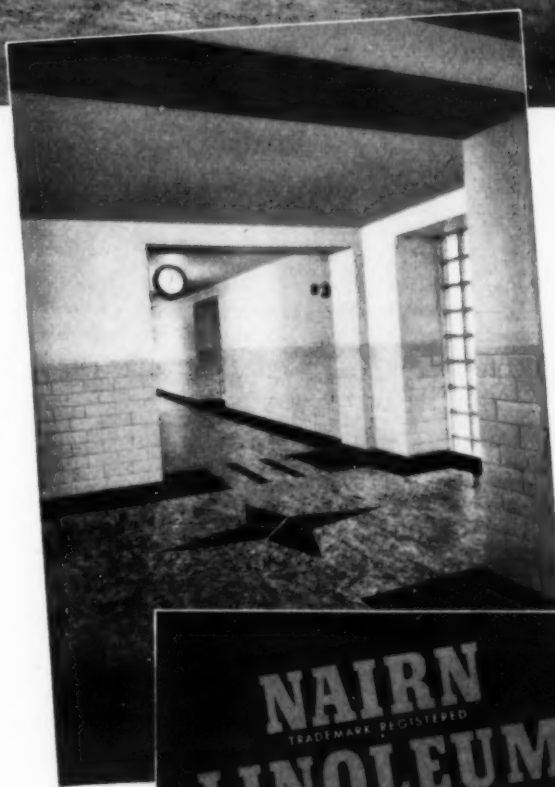
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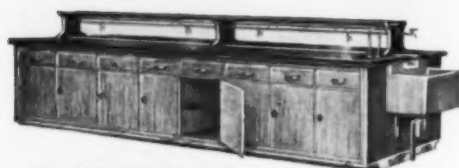
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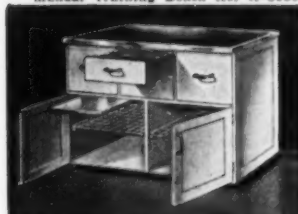
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(Concluded from page 60)

right to assign a teacher to any duties for which she is qualified, according to a ruling of a Pennsylvania Court.¹¹

Teacher Unlawfully Suspended

The suspension of an elementary grade teacher with a valid contract to teach is unlawful, where the suspension completely disregards the seniority rights, under a decision of the Pennsylvania Court.¹²

Teacher Cannot Be Suspended

An attempt to suspend an elementary teacher with a valid contract to teach on the ground that her services were no longer necessary owing to the elimination of the room in which she was teaching is unlawful, according to a Pennsylvania Court, because the suspension is not prompted by any of the causes specified in the tenure law.¹³

Under the teacher-tenure act of Pennsylvania, a decrease in enrollment in a course does not authorize the dismissal of a teacher, suspension alone being authorized.¹²

Teacher Cannot Vacate Action of Board

Failure to restore a teacher to a principalship where a vacancy occurred, and action was directed by controlling political considerations resulting from concerted action of the board, did not entitle the teacher to seek relief by vacating the action of the board and awarding her the principalship of a grammar school, according to a decision of the Massachusetts Supreme Court.¹⁰

Board May Deduct from Salary

Where a board of education granted a leave of absence to a permanent teacher, and the teacher was absent for twelve months, the board

may determine the amount, if any, to be deducted from the salary due the teacher for the months in which the absence occurred, under a decision of the California Appellate Court.¹³

May Change Bylaws

Under a decision of the Oregon Supreme Court, a retirement association has the power to change its bylaws relating to the amount required for an annuity during the time a teacher is a member of the association, since such action may be taken to provide for the welfare of all concerned.¹⁴

Rights of Teacher in Retirement Fund

The rights of a teacher in a retirement fund of the teachers' retirement fund association of a school district are of an inchoate nature and are subject to changes in the bylaws necessary for the betterment of the association prior to the time of the teacher's retirement and completion of her payments.¹⁴

SCHOOL LAW

♦ At Quincy, Mass., the school committee has dismissed Miss Elizabeth Graham, a teacher, for refusal to salute the flag. She explained that she was a member of a religious sect which forbids her to participate in a symbolic rite which her religion taught her was a form of idolatry. The Massachusetts Civil Liberties Committee has employed legal talent to defend her case, and if necessary, carry the same to the Supreme Court of the state.

♦ The governor of New York State has signed a measure, under which children are permitted to leave school for the purpose of attending religious observances and receiving religious instruction. The question as to the authority of

educational authorities to grant such permission has been declared constitutional by the courts.

♦ The board of education of Westport, Conn., has been declared an illegal body by the attorney general because it fails to have two representatives of the minority party.

♦ The State of Kentucky has enacted a teacher-retirement law, which provides that all present teachers may become members of the retirement system, unless they file a refusal. The law provides that each member whose age of entrance is less than 30 years shall contribute to the retirement system 2 per cent of his annual compensation. Each member whose age of entrance is 30 and less than 40 shall contribute to the retirement system 3 per cent of his annual compensation. Each member whose age of entrance is 40 years and over shall contribute to the retirement system 4 per cent of his annual compensation. The contribution of no member shall exceed \$80 per year.

♦ The Illinois Supreme Court has declared three-year contracts for teachers constitutional. The state law, permitting three-year contracts for teachers after a probationary period of two years, had been previously declared unconstitutional by the Circuit Court of Hamilton County. The case was carried to the Supreme Court by the Illinois Education Association.

♦ The board of education of Rockford, Ill., has brought legal action against Winnebago County nonhigh-school district for delinquent tuition claims. These cover the years 1937, 1938, and 1939 and amount to \$29,966.

♦ A married woman teacher, who was dismissed at St. Paul, Minn., brought suit for her reinstatement on the plea that the tenure law gave her protection. The charge against her was "inefficiency in teaching and management of her classes, resulting from inability to maintain discipline, refusal to accept correction from her supervisors, and use of language to children that is unfitting and unladylike." The court held that there was sufficient cause for her discharge under the tenure act, and dismissed the proceedings.

¹¹In *re Womer*, 11 Atlantic reporter 2d 146, affirming 5 Atlantic reporter 2d 638, 135 Pa. Super. 433.

¹²*Bragg v. School Dist. of Swarthmore*, 11 Atlantic reporter 2d 152, Pa.

¹³*Axelrod v. Board of Education of City and County of San Francisco*, 99 Pacific reporter 2d 571, Calif. App.

¹⁴*Crawford v. Teachers' Retirement Fund Association of School Dist. No. 1, Multnomah County*, 99 Pacific reporter 2d 729, Oreg.



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School Board Conventions

KENTUCKY SCHOOL BOARDS URGE LONG-TERM SUPERINTENDENCY

The Kentucky School-Board Association, at its annual meeting in Louisville, April 17-20, adopted a resolution in which it urged that the state superintendency of public instruction be made an appointive office, and that its four-year term limit be changed. The association asked that the state amend its constitution at the earliest possible time to permit the State Board of Education to name the superintendent who is now elected by popular vote, and who may serve only four years. The association urged that the board be authorized to pay a salary sufficient to secure a man of the highest ability and suggested that such a man should continue in office so long as he renders satisfactory service.

The association, in another resolution, urged higher professional and ethical standards in the public schools, and argued for a new requirement of three years of college preparation for teaching. It condemned the practice of "buying and selling" schools, urged larger per-capita state support for schools, and indorsed the principle of the federal aid law.

Dr. L. E. Meece, executive secretary of the association, said the resolution on "buying and selling" of schools referred to the practice of some candidates for jobs who promise a part of their salary checks to board members in exchange for election.

Dr. N. L. Engelhardt, of Teachers College, Columbia University, in emphasizing the demarcation between authority of board members and teachers they employ, said that the teacher is not the hireling of the board. The teacher trained in education method and steeped in our philosophy of living is aided and stimulated by the board of education to carry on his teaching under broad policies which the board has adopted as

substantial planks in the educational platform which it is helping to build.

Dr. Engelhardt said that board members should be constantly going to school, and unless they are willing to study the problems of society, they are under distinct handicaps and limitations. Indorsing the policy of state school-board organizations, he said possibly no means of improvement of school-board action has been quite as satisfactory.

The meeting closed with a business session and the election of officers for the next year. H. B. Schuerman, of Carrollton, was elected president; Mrs. Helen Smith, Shepherdsville, was elected first vice-president; John I. Claybrook, Maysville, second vice-president; and Dr. L. E. Meece, secretary.

LEGISLATIVE PROGRAM OF MICHIGAN SCHOOL BOARDS

At the state convention of Michigan School Boards, held in Lansing, on March 27, the following legislative program for 1940 was adopted:

This group, on behalf of the 20,000 school-board members of the state, being determined that schools and the means of education shall forever be encouraged in Michigan, and believing that every child in Michigan has an inherent right to a reasonable schooling, and having faith in the ability of this great state to provide adequate education for our children, hereby endorses the following program on behalf of the schools of the state and requests the governor and the state Legislature to give serious and earnest consideration toward the enactment of these proposals into law at the 1941 session of the legislature.

1. The provision of \$47,000,000 in state school aid (including the primary school interest fund) for 1941-42, and 1942-43 with the primary school interest aid for school operation.

2. The adoption of a constitutional amendment to the 15-mill limitation provision, providing that any proposal to increase the 15-mill limitation may be carried by a majority vote instead of the present two-thirds vote.

3. Legislation which will enable school boards to borrow an amount not to exceed 25 per cent of the district's operating budget without the permission of the state loan board.

4. Amend the law (Act 90, P A 1939) governing the amount of bond which treasurer of school district must

furnish so that the bond may be limited to the largest amount of money which may be in hands of treasurer at any time during his term of office rather than the total amount received by the school district in any one year.

5. That we endorse the proposed amendment to Article X, Section 21 of the Michigan constitution which would permit school districts to bond for school-building construction for at least fifteen years and which will be submitted to the electors at the November, 1940, election.

WISCONSIN SCHOOL BOARD ELECTS OFFICERS

The Wisconsin Association of School Boards, at its recent meeting in Milwaukee, on April 12, elected the following officers:

President, Sam Myers, Racine; vice-president, W. J. Sleeman, Superior; second vice-president, C. E. Treleven, Nekeosa; secretary, Mrs. Letha Bannerman, Wausau; treasurer, C. D. Rejahl, Beloit.

STUDY OF SCHOOL PROBLEMS UNDER WAY IN ILLINOIS

Association of School Boards Leads Program

Serious problems of suburban and down-state public schools of Illinois will be subjects for discussion in an expert study by a new agency just established through the cooperation of the Illinois Association of School Boards with Northwestern University, the University of Chicago, and the University of Illinois. The chief approaches of the commission will be:

1. Tapping the educational resources of the graduate schools of three universities.

2. Adoption of the scientific method of survey, study of data, and a study of the conclusions.

3. Continued effort toward wise legislative reform for the public school machinery of the state.

4. Cooperation of educational forces in the state toward the enhancement of education and educational opportunities.

5. Establishment of a better understanding between school boards and the educational profession.

6. Guidance toward the present program of self-education of school boards.



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In an effort to supply in some small measure both the incentive and some of the information necessary for a better meeting of minds on disputed matters of education, the recent annual convention of school boards authorized the establishment of a commission by the association to undertake an adequate survey, study, and recommendations to accomplish worth-while results. In keeping with this decision of the school boards, requests were made of the presidents of the three great universities to cooperate by appointing members of their respective schools of education to serve on such a commission. These appointments have been made. In addition to these, other persons long conversant with school problems from the practical side have been named, to consist of Charles L. Cobb, Hinsdale; Albert G. Duncan, of Evanston, Ill.; Dr. Eugene S. Lawler, of Northwestern University; Dr. D. E. Lindstrom, University of Illinois; Herbert B. Mulford, of Wilmette; Dr. William C. Reavis, University of Chicago; Edward R. Seese, Bannockburn, Ill.; John C. Watson and Dr. Oscar F. Weber, University of Illinois.

Organization of the commission, which bears the association title of "educational advisory committee," is only one of a series of significant steps taken by the school boards recently. About twenty-five meetings of boards, educators, and local legislators have been held by districts in six months, frequently covering several counties to a meeting. Currently the bimonthly bulletin of the association has been changed in size, scope, and direction, under the new title "Illinois School Board Journal" under the general supervision of a newly established editorial board.

For a number of years positive overtures have been made by the association to bring about cooperation between boards and the educational profession. It is hoped that graduate studies undertaken and the tapping of other educational sources may be pointed toward the practical problems in Illinois, thus lending additional scientific data and interpretation to all previous cooperative work.

The committee has decided to undertake a study of the problems surrounding the greatly needed recodification of the state school law. At the suggestion and with the sponsorship of the Association, a graduate study is being made at Northwestern University of the much-disputed relationship of school boards and their administrators. Up to the present, both the University of Chicago and Northwestern University have included special school-board problems in their programs for summer conferences of teachers and administrators. The University of Illinois will, in all probability, do likewise.

NATIONAL SCHOOL CAFETERIA ASSOCIATION WILL MEET

The president of the National School Cafeteria Association has announced the tentative program for the annual convention, to be held October 30 to November 2, in the Hotel Peabody, Memphis, Tenn. Special attention will be given to the subject of school feeding as carried out in the school lunchrooms of the country.

Complete information may be obtained by writing to Mr. George Mueller, president, 204 Public Library Bldg., Kansas City, Mo.

AMERICAN ASSOCIATION OF SCHOOL ADMINISTRATORS WILL MEET IN ATLANTIC CITY

The executive committee of the American Association of School Administrators has announced that the 1941 convention of the Association will be held February 22-27, in Atlantic City, N. J.

The Association includes in its membership practically all of the city and state superintendents of schools in the United States as well as many county superintendents. The last meeting in Atlantic City was held in 1938, with an attendance of 12,600 educators. It is expected that this year's convention will attract a large attendance, and may even exceed that of 1940 in St. Louis, when 15,000 were in attendance.

REAFFIRMS COLOR STANDARDS

The United States Bureau of Standards has reaffirmed its standard color recommendations for "school brown" and for some years to come the cooperating manufacturers will continue finishing all standard school furniture in a medium quartered oak brown. Fixed light and dark limits have been accepted.

During the past ten years during which the standard colors have been maintained, the following benefits have been observed:

To the Producer and Manufacturer:

1. Less capital tied up in slow-moving stocks.
2. More economical manufacture due to simplified inspection requirements.
3. More permanent employment as contrasted with present seasonal employment.
4. Larger units of production and less special machinery.
5. Prompter delivery.
6. Less chance of error in shipment.
7. Less obsolete material and machinery.

To the Jobber, Wholesaler, and Retailer:

1. Increased turnover.
2. Elimination of slow-moving stock.
3. Staple line, easy to buy, quick to sell.
4. Greater concentration of sales efforts on fewer items.
5. Decreased capital invested in stocks and repair parts on hand.
6. Less storage space required.
7. Decreased overhead, handling charges, and clerical work.

To the Consumer:

1. Better values than otherwise possible.
2. Better service in delivery and repairs.
3. Better quality of product.

• SUPT. VICTOR F. DAWALD, of Beloit, Wis., has been re-elected for another year.

• MR. J. H. MURPHY, of New Holstein, Wis., has been elected superintendent of schools at Rice Lake. He succeeds W. F. Waterpool, who has accepted the superintendency at Marinette.

A GREAT NEW LINE OF ROYAL FOLDING CHAIRS

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1. GUARANTEE

On practically all Royal folding chairs the metal construction is unconditionally guaranteed against breaking or coming apart for TEN YEARS.

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No price discrimination—one low price to all—and the assurance that you cannot do better whether you call for competitive bids or give the order to a Royal representative the next time he calls.

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A most complete line of portable seating, strictly for institutional use, ever offered. There is a chair suitable for every need and in four most popular price groups.

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The Royal line is produced by the originator of steel folding chairs in America—a manufacturer that has had 43 years' experience making metal furniture.



No. 243—flexible channel construction with saddle-shaped steel seat—in quantities of 100 or more.

\$1.19

Prices are f.o.b. factory, Michigan City, Ind. Extra charge for rubber feet on any chair. Chairs also available with roll-formed, comfort shaped, tempered Masonite seat or upholstered seat at slight increase in price.

SHIPMENT WITHIN 24 HOURS OF ANY QUANTITIES IN STANDARD TAUPE FINISH.



No. 143—angle steel construction with saddle-shaped steel seat—in quantities of 100 or more.

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Large saddle-shaped seats, comfort-shaped backs. Just right pitch of seat and back to sustain comfort.

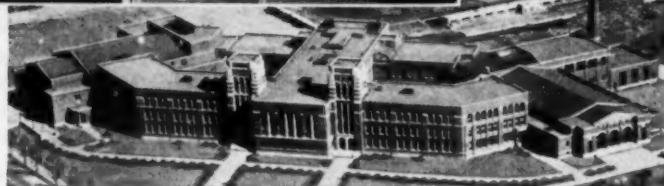


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School Administration News

REORGANIZATION OF JUNIOR HIGH SCHOOLS IN WALTHAM, MASS.

A reorganization of the junior high schools in Waltham, Mass., was effected during the school year 1939, under the direction of Supt. William H. Slayton. In all, 859 of a total of 1,500 pupils in grades seven, eight, and nine were enrolled in platoon sections, and attended school sessions from 8:00 a.m. to 5:30 p.m. To obtain relief from this situation it was decided to transfer 216 seventh-grade pupils to a 32-room elementary school, where a group of seven second-floor rooms were made available through a consolidation of small elementary classes.

As organized at present, the identity of this group is maintained and the members are subject to junior-high-school activities, including physical education, music, assembly periods, shop and home-economics activities. Beginning with the

school year 1940, these classes will move to a regular junior-high-school building which is restricted to grades eight and nine.

Under the present plan, shortened sessions have been obviated, unused classrooms have been filled, and the necessity of providing additional junior-high-school accommodations has been obviated.

A power-stitching class, with an enrollment of sixteen girls, has been in operation since September, 1939. The equipment for the class was loaned by two local factories. The teacher is an experienced trades worker, and the work which is entirely practical, includes the making of operating garments and sheets for the hospital, Red Cross supplies, and gymnasium suits. The work is being financed by the George-Deen federal appropriation, and is supervised by the Division of Vocational Education of the State Department of Education.

SAFETY RATING FOR ENID SCHOOLS

A safety inspection plan, which originated in the Enid, Okla., school system in 1939, and received its first practical application in January,

1940, has proved an efficient means of maintaining safe conditions in the school buildings of the city. The safety check on the buildings is effected through regular monthly inspections, and the goal has been set at getting every school in the high safety brackets.

At the second monthly inspection in February, it was revealed that thirteen of the fifteen school buildings had attained the rating of "A" or satisfactory. Of the several schools, ten showed a commendable percentage gain over the first inspection in January.

The inspection, which endeavors to secure and retain the cooperation of the school custodian, is intended to prevent accidents of all kinds, whether fire, falls, or otherwise, and to guard against epidemics. Gas lines and boilers are checked, electric wiring and sanitary facilities are gone over. Closets and cupboards are checked for oily rags or other materials which might ignite spontaneously. Yards are inspected for obstructions which might cause falls. In all, nearly 50 items are checked each month in every school building.

Each building is judged on the basis of an individual score sheet, which offers a total score of 100 per cent for a perfect rating on monthly maintenance. Credits of from one to four points are allowed for such items as condition of grounds and walks, condition of classrooms and offices, toilets, furnace room and heating plant, general building hazards, and cleaning tools and materials.

At each inspection of a building, a copy of the score sheet is left with the custodian and his rating for the particular month is placed in the proper place on the rating sheet. Where a custodian has attained an "A" rating for the month, which is a score of 90 or more, the board awards a certificate of excellence at the next regular meeting on the first Monday of the month. The certificate is placed in a frame and hung on the wall of the corridor near the main entrance so that teachers, students, and the public in general may see the rating for their school.

The Enid schools are fire resistant and well arranged for rapid exit in case of danger. Yet, there are constant dangers in any public building containing as many persons as do the schools, and it is recognized that no means should be spared in keeping the schools free from major and minor accidents.

HOW EXTRACURRICULAR ACTIVITIES ARE FINANCED IN PALMYRA, NEW JERSEY

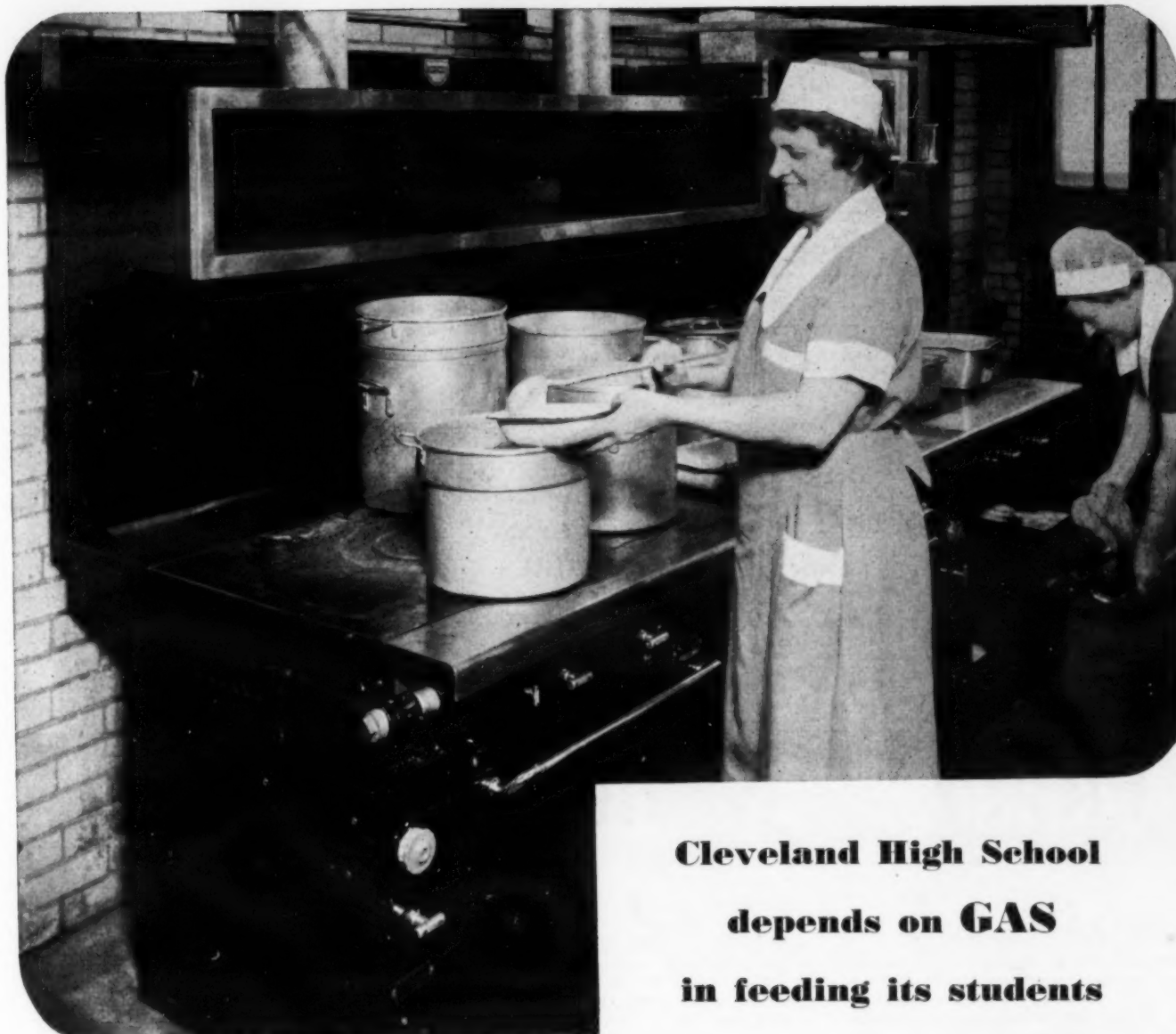
The Public Schools Activity Fund, of Palmyra, N. J., in its report for April, 1940, contained some interesting data. This fund provides for many of the extracurricular activities of the high school and is supported by money raised entirely by the student body.

The report shows that the receipts from football during the year 1939-40 amounted to \$2,583.37, and the profits from basketball were \$259.20. This means that the revenue from these two sports alone covers for all expenses of the season and is sufficient to pay for the baseball, track, tennis, and girls' athletics. The main costs for these sports are equipment for the players, transportation to out-of-town games, and referees' fees for home games.

To finance the *Tillicum* or senior class yearbook, the *Palmyrian*, the school newspaper, and other literary and social activities, a number of groups raised a fund of several hundred dollars. One money-raising project was a candy sale which netted \$257.33, and a number of recording dances were held which produced \$116.10.

Students who desire, may purchase an Activity Fund Ticket, at a cost of \$3, which admits the pupil to every home sport, and allows a special rate on many events both at home and away. About 550 students took advantage of the ticket plan during the past year, which contributed \$1,422 to the activity fund.

The report shows that the total receipts to date amount to \$6,087.33, which means that the high-school students deserve great credit for raising the money for their extra activities, which otherwise might have to be eliminated or handled through some other method.



Kitchen showing modern heavy-duty Gas ranges in East Technical High School, Cleveland, Ohio. Photograph courtesy American Stove Co.

The cafeteria management of the East Technical High School, one of the largest schools in Cleveland and the country, feels that "the best cooking equipment is none too good" for the thousands of pupils attending it. The heavy-duty Gas-fired range installation in this high school is used not only to cook for its own pupils, but to prepare food for three other schools in the vicinity. The chefs and the school management are "greatly pleased with the operation of the new equipment and Gas fuel."

Practically every new school, as well as those modernizing, is turning to modern Gas-fired equipment for cooking. Obviously the answer is that gas fuel's speed, controllability and economy make it easier to solve the cafeteria food problem and to please young appetites at low cost.

If you are not getting the most out of your own cooking equipment, why not ask your Gas Company for recommendations?

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School officials will find it a lot easier to get approval of clinic equipment expense if they present the specifications and price of an Archer Chair.

Doctors using these chairs in school clinics everywhere will recommend them as being adaptable for not only dental work, but eye, ear, nose and throat practice as well as X-ray and minor surgery on children or adults.

Just as efficient examinations or treatments can be made with an Archer Chair as one that costs twice as much.

If equipment cost is holding back your health program, an Archer Chair will remove that difficulty.

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FEATURES

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Tilting and revolving seat

frame, reclining back and self adjusting, rubber padded, cradle headrest.

Choice of 6 color finishes. Genuine leather upholstery to match finishes.

Bakelite arm rests, acid proof.

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Separate footrests for children and adults.

Backed by Archer's 83 years' experience in designing and manufacturing professional equipment.



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ARCHER MFG. CO., Inc.
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ROCHESTER, N. Y.

SCHOOL ADMINISTRATION

♦ Northampton, Mass. Sentiment outweighed economy and modern educational standards when the school board voted six to two in favor of keeping the Slough Hill School open for another year. Parents of the children attended the meeting held to consider the question, and Supt. Wm. R. Barry brought out that the operation of this school costs \$190 per pupil, or \$105 more than the average local elementary school. He explained that by spending \$650 a year to transport the children to another school, the department would effect a saving of \$1,250 per year.

♦ Newton, Mass. Dr. Ellsbree, of Columbia University, New York, is making a survey of the salaries paid to teachers.

♦ Jamestown, R. I. The school board has voted to make a study of the cost of high-school tuition for students in communities other than Newport.

♦ Casper, Wyo. The rotary club has offered to assist the school board in the purchase of 100 new uniforms for the high-school cadet band.

♦ New York, N. Y. The board of education has begun moving from the Fifty-ninth Street Building, Manhattan, to its new headquarters building, the former Brooklyn Elks Clubhouse, at 110 Livingston St., Brooklyn. While a few of the departments will find their living quarters in the building immediately, some of the bureaus will not move to their new locations until July.

♦ Wellesley, Mass. Two eleven-year-old junior-high-school girls, members of Jehovah's Witnesses, were ordered expelled by the school board because they had refused to salute the American flag. The board indicated that reinstatement in the school is possible, whenever they shall obey the law.

♦ Mansfield, Mass. The school board has voted to discontinue the opportunity class for backward children.

♦ Wethersfield, Conn. The school board has prohibited all forms of fund solicitation in the

schools, including the current refugee drive started by Dorothy Fisher.

♦ Madison, Ind. The school board has received the gift of a theater organ, which will be installed on the east side of the gymnasium stage. The organ, which was installed in the Madison Theater in 1928, cost \$7,500, and was used only a short time when the sound film took its place.

♦ East St. Louis, Ill. The school board has adopted new "foolproof" specifications to be used in advertising for coal bids. A feature of the provisions is a clause that bids are to be taken in the late spring when the demand for fuel is light and prices low. Under the new plan, the dates for contracts are from July 1 to the following June 30, in an effort to effect economies. The main features of the specifications are:

1. Use of a standard commercial size instead of an odd-size coal.
2. Inclusion of a premium and penalty clause to insure uniform quality with periodic tests to be made by a commercial laboratory.
3. More clearly and more exactly worded specifications on a scientific basis.

♦ Muncie, Ind. An occupational survey is being made by the vocational department of the city schools, to determine whether or not public schools are training youth to meet life situations. Fifty-one industrial establishments, all trades and crafts, and hundreds of stores and small business establishments have been included in the survey.

♦ Mr. John A. Fleischli, chairman of the building committee of the board of education at St. Louis, Mo., has reported to the board that it will cost \$750,000 to make the heating equipment of the schools comply with the city's smoke-elimination ordinance. The board recently voted to comply with the smoke ordinance, although it was not under compulsion to do so. If only new stokers are needed, the cost of extra equipment would be \$250,000.

♦ Ypsilanti, Mich. The local Kiwanis Club recently entertained the past and present members of the board of education at a luncheon meeting. A record of service was presented as a part of

the program, and an embossed certificate was given to each guest on behalf of the local community. Mr. Alexander G. Ruthven, president of the University of Michigan, was the guest speaker.

♦ Anoka, Minn. In preparation for the next school year, the high school has reorganized its biology department, under two teachers. One teacher will have charge of the boys' classes, and one of the girls' classes.

During the year 1939-40, a junior-senior organization was arranged and operated. Some of the teachers work in both junior and senior classes. It is planned to add two new teachers to complete the organization next year.

♦ Palmyra, N. J. The pupils in one of the elementary schools, under the direction of their instructor, recently began a study of birds as a part of the science work. As a result, thirteen of the class became members of the Audubon Bird Society. Each child received a membership pin and six folders describing birds of the vicinity.

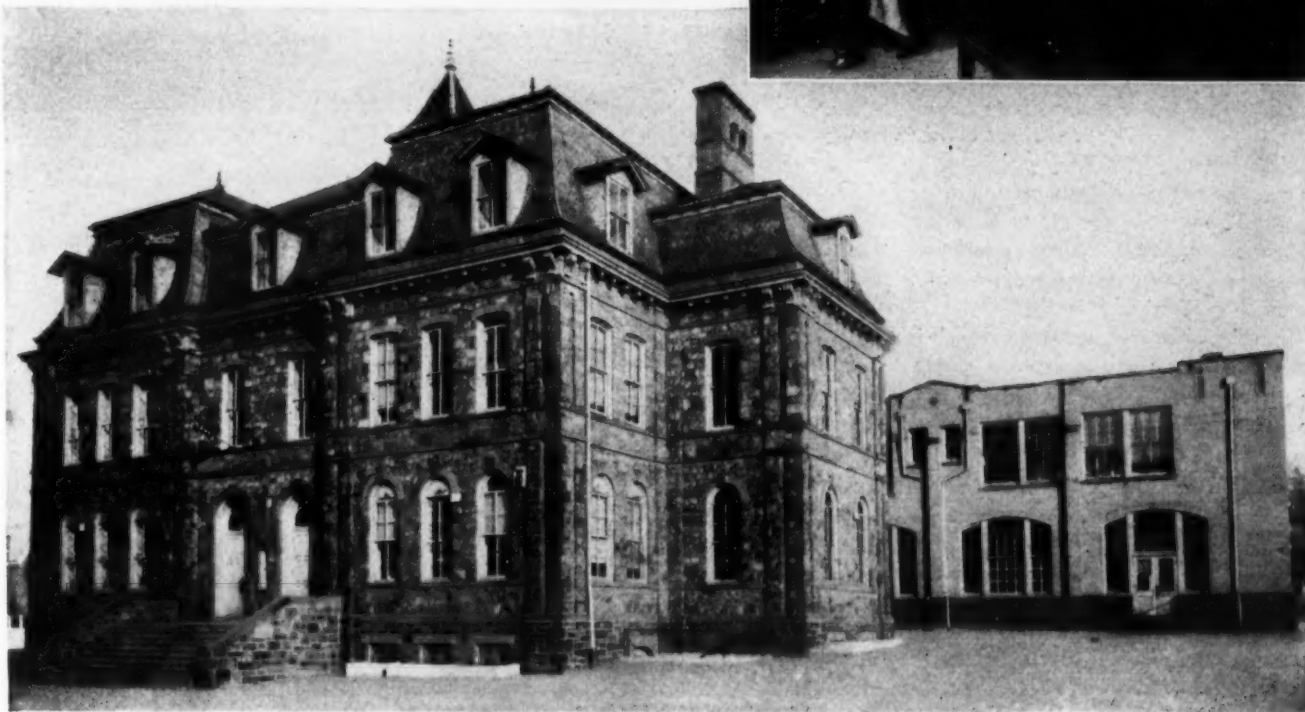
MENDON HIGH SCHOOL BOARD ADOPTS TEACHER TENURE

The board of education of Mendon Township High School, Mendon, Ill., has adopted a teacher-tenure policy, which is to be effective for the school year 1940-41. The board believes that such a policy will provide encouragement for improvement and for greater efficiency in the conduct of the schools. The policy includes not only teachers but also principals and the superintendent.

After an initial probationary period of two consecutive school years, if the services of the teachers are still desired, a three-year contract will be issued, which is renewable at the end of the first two years of the contract. If the services of the teachers are not desired after three years, the contract may be terminated.

The plan was arranged and carried out under the direction of Lowell B. Fisher, superintendent of schools, and with the approval of George P. Shupe, president of the board of education.

In the office of the Bethlehem, Pennsylvania, Board of Education



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entire school system, as well as in the production of prompt reports for board meetings and governmental requirements.

Why not telephone the local Burroughs office today and learn how you, too, can profit by Burroughs' wide range of machines and long experience in the field of school accounting? Or, if you prefer, write—

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SCHOOL WINDOWS WORTHY OF CLOSE-UP STUDY



Ponca City Junior High School, Ponca City, Okla. Winkler & Reid, Architects; D. A. Harmon Construction Co., Contractors



Windows like Fenestra "Dalmo-Fenmark", that add so much in beauty to exterior appearance and have so many interior advantages for teachers and pupils, deserve close-up study.

With their narrow frames, slender muntins and well-proportioned glass areas, they fully meet the architect's desires from the standpoint of design.

On the inside, "Dalmo-Fenmark" "Windows provide control of fresh air...100% openings if desired. Their projected, open-out vents are easily operated in unison by a concealed, fully automatic operating device connected to the bottom vent. Economical screening can be provided. Vents are constructed to form weather-protecting canopies over

openings and act as awnings when shaded on the underside. Bottom vents are designed to close independently when desired. Direct or remote control operators are available.

For complete details... telephone the local Fenestra Office (in all principal cities) or write Detroit Steel Products Co., 2254 E. Grand Boulevard, Detroit, Mich.

Fenestra HEAVY CASEMENT-TYPE WINDOWS FOR SCHOOLS

School Building News

SCHOOL-BUILDING CONSTRUCTION

During the month of April, Dodge reports contracts let for 224 educational and science buildings, in 37 states east of the Rocky Mountains. These buildings involved the construction of 2,761,000 square feet of floor area, and a valuation of \$17,354,000.

In 11 states west of the Rocky Mountains, contracts were let during April for 13 new school buildings, involving a total cost of \$1,561,300. Fifteen buildings, in preliminary stages of preparation were reported, to cost an estimated \$4,759,000.

SCHOOL-BOND SALES

During the month of April, school-bond sales in the amount of \$3,558,360 were reported. The average interest rate was 2.59 per cent.

Short-term paper, including tax-anticipation notes, refunding bonds, etc., were reported in the amount of \$8,833,458.

The largest sales were made in North Carolina, where \$1,039,000 were reported.

SCHOOL LEVY RECEIVES PHENOMENAL VOTE

Kanawha County, W. Va., which includes the city of Charleston, owns 302 school buildings, valued at \$14,672,680. The schools have an average daily attendance of 6,268, while the number of principals and teachers is 1,486.

Three years ago, the school authorities became aware that an acceptable standard could not be maintained for the schools, unless an extra levy were voted. This year the same question arose.

In consequence, the facts were presented to the voters of Kanawha County, in a comprehensive document, prepared by Supt. Virgil L. Flinn, involving some \$4,000,000 to be used mainly for

new buildings. The levy was carried by a 92 per cent vote.

THE NATION'S SCHOOL PLANT EXPANDED BY WPA

The Work Projects Administration has completed an inventory of all the work performed during the period of four and one half years in which it has been in operation, that is, from July, 1935, to January, 1940. Practically all of the construction of new school buildings since 1933 has been made possible through the cooperation of the Federal Government with local committees on work programs. This has had the dual objective of improving the physical plant and giving work to the unemployed.

In a report just made public, it is revealed that since 1935, the WPA has constructed 3,935 new schools, built 1,480 additions to buildings, and improved and modernized 27,664 others.

A survey made in 1935, by the National Education Association, showed that 700,000 children were attending school in buildings which were considered unsafe or insanitary, many of them firetraps. A large part of the school plant had become obsolete.

Every state, and a majority of the counties, have received some benefit from the WPA school construction program. Some states reported school improvements in every county. Mississippi reported the largest school-building program in the history of the state in the past four years, operating in every county and community in the state.

The WPA school-construction program has developed the educational plant in four ways: by the addition of new urban and rural schools where none existed; by the replacement of outmoded structures with modern buildings; by repairing, rebuilding, or adding to still useful structures in order to accommodate the growing needs of school districts; and by the construction of up-to-date rural schools offering the greater advantages of the urban school population.

Oklahoma, South Carolina, and Arkansas, it was shown, have had the largest school-construction

programs under the WPA from the standpoint of new facilities, although some states have operated a greater number of projects involving renovation and repair to existing buildings. In these three states alone, the WPA completed 1,300 new schools and 200 annexes; and improved, reconstructed, or repaired 3,000 schools.

Kansas, in its school-construction program, has emphasized beauty of design, as well as sturdiness in architecture. The new stone schools are a part of a "make-Kansas-schools-beautiful" campaign.

Two newly dedicated high schools, built by the WPA and equipped to provide students with the best high-school facilities, are those at Princess Anne, Somerset County, Md., and at New Ulm, Minn. In Tupelo, Miss., one of the finest high schools of the state has been completed by the WPA, replacing an old school.

Contributing to the auxiliary educational facilities of the nation, the WPA has built 110 new libraries, 53 library additions, and made improvements to 752 library buildings. It has constructed 318 auditoriums, 848 gymnasiums, 1,640 stadiums, and has provided 2,271 playgrounds, in addition to improving and enlarging 7,898 play areas.

In many states the architects' plans for new schools included lunchroom facilities, which were lacking a decade ago in all but a few of the elementary-school buildings. This inclusion is attributed in part to the widespread popularity of the WPA lunch program which is now serving 1,000,000 underprivileged children each day.

MODERNISTIC SCHOOL IN KENTON, OHIO

The board of education at Kenton, Ohio, has occupied a new high school, erected at a cost of \$335,000. The building, designed to accommodate 650 students, contains space for a cafeteria, an auditorium, a gymnasium, and a music room, in addition to classrooms, and rooms for home economics and shop subjects.

The building was erected from plans prepared by McLaughlin and Associates, architects, of Lima, and the educational planning was in charge of

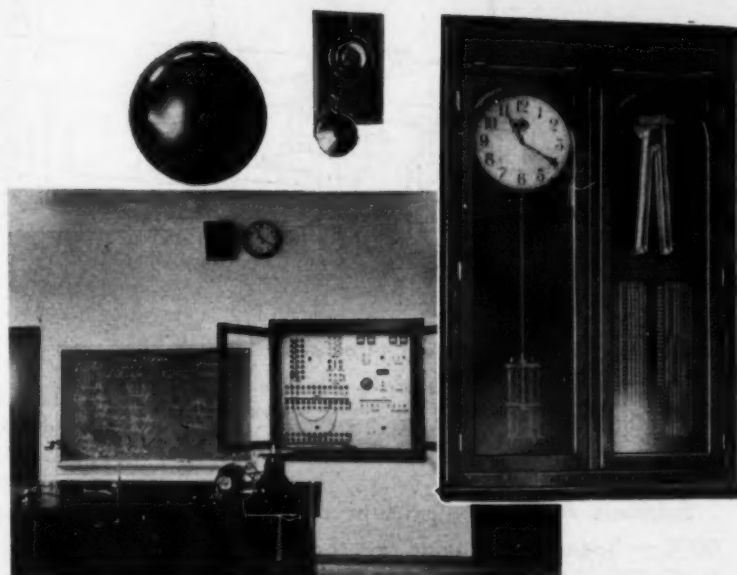
It's "STANDARD" Equipped Straight Through ... The New Spaulding High School, Rochester, N. H.

● It is no surprise that the new Spaulding High School, Rochester, N. H. has received the favorable attention of the editors of *The American School Board Journal*. It is a thoroughly modern school offering every scientific and educational advantage.

The Standard Electric equipment installed in it includes a Laboratory Distribution Panel, Program Clock System, Telephone System, and Fire Alarm Equipment.

If your school doesn't enjoy these modern educational advantages, right now is the best time to arrange for modernizing it. Write us now for complete information.

Write Dept. B.



★ **THE STANDARD ELECTRIC TIME CO.** ★
Springfield, Mass. — Branch Offices In Principal Cities

L. E. McKinley, superintendent of schools, and Charles Secoy, principal. The financing was accomplished with a federal grant of \$150,750, and a bond issue of \$185,000 was provided by the school district. The serial maturity bonds were sold at 2½ per cent interest for a maximum 23-year period.

BUILDING NEWS

♦ Dupont, Ind. The school board has completed the erection of a new gymnasium, a stage, and an addition of four classrooms for the industrial-arts work. The high school has been raised to a new standard and will operate in the future on a continuous commissioned basis.

♦ Abilene, Kans. The board of education has begun plans for a school-building program, to be planned on a long-range basis, to take care of the school-building needs for a number of years. The building program will be financed with the aid of a WPA grant.

♦ Nicholasville, Ky. During the school year 1939-40, the Jessamine County school board carried on a program of school improvements, including classroom instruction, school buildings, and health and sanitation. The board is at present engaged in plans for a program for the next school year, to include the installation of new heating and sanitary systems in a number of the larger schools of the county.

♦ Owensboro, Ky. The board of education has received notice of the approval by the Federal Government of a WPA grant of \$30,926 to aid in the construction of an additional football stadium. Construction work will start immediately and the stadium will be ready for use next September. The present stadium seats 1,200 persons and the addition will provide 600 additional seats. Another new stadium will be constructed on the opposite side of the field to accommodate 1,800 persons.

In the construction of the first stadium, the financing was accomplished by local citizens. Dr. O. W. Rash, a local physician, obtained 100

donations of \$100 each, making a fund of \$10,000, with the result that the stadium was built without any expense to the board. In the extension of the stadium, and the construction of the new one, Dr. Rash again became sponsor for raising the necessary funds. The city will now have ample stadium space, with practically no expense to the taxpayers from the regular school funds.

♦ Owensboro, Ky. The board of education has begun work on the construction of a new technical-high-school building, to be erected at a cost of \$190,000. The building will contain three stories and will have two wings for industrial-arts shops and home-economics rooms. The building is being financed with the aid of the PWA and will be completed in September, 1941.

♦ Jackson, Miss. The voters have approved a school-bond issue of \$485,000, the proceeds to be used for a school-building program.

♦ Providence, R. I. Supt. James L. Hanley has presented to the school board, a summary of the recent fire-hazard survey of the schools. The report points out that 70 per cent of the buildings are of ordinary combustible construction. Recommendations call for installation of automatic sprinklers, enclosed stairways, boiler-room enclosures, electrical improvements, and other safeguards. A \$625,000 betterment program is recommended.

♦ East Providence, R. I. A fire-alarm system which is considered "foolproof" will be installed in the schools. The new system is constantly and automatically supervised, and simultaneously calls the fire department and sounds a local exit alarm. The units installed will complete a circuit for ringing the alarm when a temperature of 160 degrees occurs.

♦ Three new elementary schools — the Adams, the Jefferson, and the McKinley — were recently dedicated at Fergus Falls, Minn. Dedicatory programs for these buildings were arranged and carried out under the direction of the board of education. The buildings were presented to the board by M. O. Fass, architect, and were accepted by C. J. Wittbecker, president of the board. The

total cost of the buildings, including architectural and engineering service and supervision, was \$222,181. The cost of the construction amounted to \$201,923.

♦ St. Joseph, Mo. The board of education has approved an increase of \$244,518 in the insurance policies written on the school plant of the school district for 1940-41. The program, prepared by George Blackwell, business manager, calls for a total coverage of \$3,525,848. Eighty per cent of the insurance will be given to the stock companies, and 20 per cent to the mutual companies. The board has asked that Dr. N. E. Viles, State Director of School Buildings, be assigned to make an appraisal of the physical properties of the school district.

♦ Brainerd, Minn. The board of education has dedicated four new elementary-school buildings, which were completed during the school year 1939-40, at a total cost of \$800,000. Dedicatory programs were carried out, with Architect E. R. Erickson, of Duluth, presenting the buildings. Mrs. J. A. Thabes, Sr., accepted the buildings in the name of the board, and Dr. E. G. Williamson made the dedicatory address. At the close of the program there was open house and inspection of the buildings.

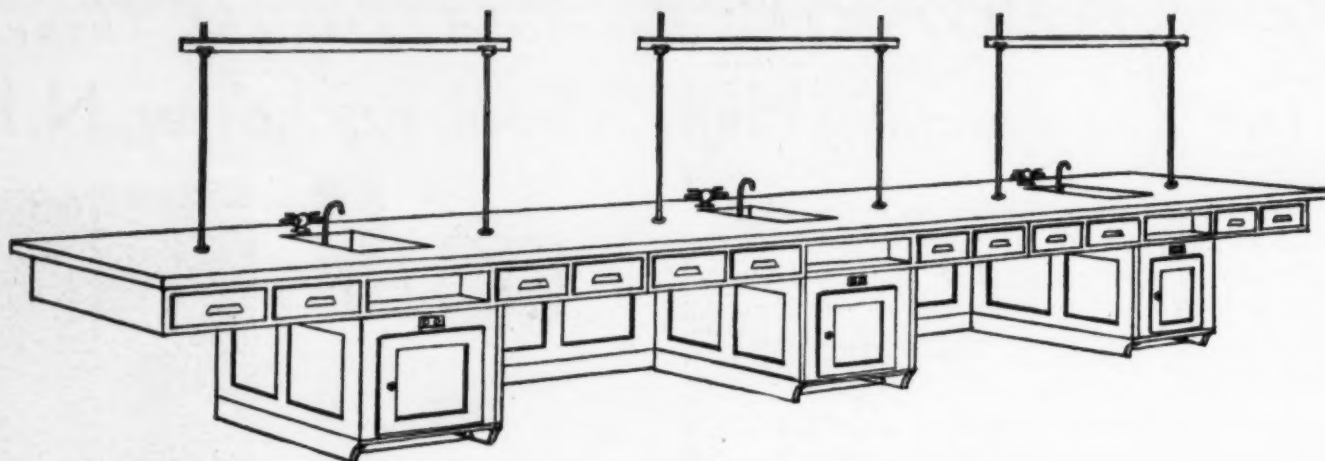
♦ Lincoln, Nebr. The voters have approved a school-bond issue of \$190,000. The bonds, which are in addition to the \$330,000 issue of September, 1938, will be used to construct the Northeast High School building.

♦ The board of education at Aitkin, Minn., has completed and occupied a new auditorium-gymnasium, which was erected at a cost of \$68,000.

The building contains space for a music department and a community room. Plans for the building were made by Messrs. Ellerbe & Company, of St. Paul, who also supervised the construction work.

The building was financed with the aid of a 45 per cent grant from the PWA, and the local district furnished 55 per cent of the cost of construction.

NOW YOU CAN AVOID THOSE FURNITURE STAINS!



It's hard to believe — but those acid stains that used to mar the sides of laboratory furniture are no longer necessary. Walrus has a new acid-resisting wood finish that is amazing.

Sulphuric Acid 77% — Glacial Acetic Acid 99% — Sodium Hydroxide — Ether — Gases — (just to name a few) leave no mark on the new Walrus finish. Nor is it affected by scouring materials!

School men are hailing it as one of the biggest improvements in several decades — and we've been in this business since the beginning of the century.

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CALIFORNIA SCHOOL BUSINESS OFFICIALS DISCUSS SCHOOL FINANCE, INSURANCE, AND BUSINESS ADMINISTRATION

A. P. Mattier

The thirteenth annual convention of the California Association of Public-School Business Officials was held at the Hotel Del Coronado, near San Diego, April 17 to 20, inclusive. President Don B. Rice, of Oakland, and the board of directors prepared an interesting program which offered valuable information to every official in attendance.

John W. Lewis, president of the N.A.S.B.O., read a paper on "An Overview of Business Administration," in which he recommended that every business official analyze his own job frequently, and carefully put his own house in order as if he were preparing to turn over the job to a successor. Among other points, he stressed the need for careful, conservative planning and administration of the schools in order to survive the scrutiny and the criticism to which the schools are now being subjected.

Among the speakers on the program was Ray C. Wakefield, who talked on "The State Railroad Commission and the Schools of California." The legislative round table was led by Irving Breyer, adviser to the San Francisco board of education. Mr. Ralph Boyden, of Los Angeles County, presented the report of the accounting committee, which proved to be a most valuable contribution to public school finance.

Dr. W. S. Ford, of Glendale, presented a paper on "Sound Budgetary Procedure," in which he made a splendid contribution by giving practical suggestions which have grown out of his vast experience.

George D. Newcom, of Santa Ana, discussed "Policies and Rules Relative to Student Body Funds and Extracurricular Activities."

George Yelland, of Alhambra, in his paper on "Equipment Accounting," explained in detail the accounting system he has worked out for his district.

Dr. O. R. Hull, of the University of Southern California, gave a talk on "The Financial Future of the California Schools."

A. A. Knoll, of Long Beach, in his address on "Safety and Accident Prevention in the Schools," presented a subject which was well received.

T. L. McCuen, of Kern County, discussed "The Administration of the Civic Center Act," in which he touched upon points concerning the use of school buildings by other than school groups.

L. L. Cunningham, of Los Angeles, talked on "Methods

of Allocating Insurance to Agents, Brokers, and Companies," in which he described the very thorough work now being done by the schools of Los Angeles.

Walter Barber, of Long Beach, took up the subject, "Rules and Regulations of the Board of Education," in which he discussed the need and value of proper rules and regulations which clarify the duties and responsibilities of each office and clothe each official with the authority he needs for the discharge of his duties.

William Silance, of Los Angeles, discussing "Unit Costs for School Bus Operation," presented a thorough report on the work of the transportation committee.

S. C. Joyner, of Los Angeles, in a paper on "Obtaining Maximum Insurance Coverage at Minimum Costs," presented the results of a thorough study covering a period of two years or more.

Don Cunliff, of Los Angeles, in a paper on "School-Ground Surfacing," gave the results of a study he has made on the subject.

A. D. Duncan, of Oakland, in discussing "Factors Affecting Operation and Maintenance," pointed to many economies which may be obtained, and explained how many services could be improved by proper equipment.

"The Problem of Utility Rates for Public Schools" was handled by Charles Suffield, of Palo Alto. "State-Wide Standardization of Supplies" was discussed by Clyde S. Yerge, of Oakland, who has been instrumental in the standardization of purchasing procedures. A. C. Daniels, of the Chaffey Union High School District, talked on "Small District Problems."

John Ormond, of San Francisco, discussed "Essential Data for Personnel Records of School Employees."

"In-Service Training for School Clerks," was discussed by John W. Edgemon, of Oakland.

The convention closed with the election of officers for the next year. Walter Barber, Long Beach, was elected president; Vaughn Seidel, Alameda, first vice-president; Al Mattier, Compton, second vice-president; L. L. Cunningham, Los Angeles, secretary; and George Miner, Richmond, treasurer. A. C. Daniels, Chaffey, Thomas Hounsley, San Francisco, and Theron McCuen, Bakersfield, were elected directors.

REORGANIZE ATHLETIC COUNCIL

The school board at Athol, Mass., has effected a complete reorganization of the high-school athletic council. The council now consists of twelve members, comprising the principal of the senior high school, the superintendent of schools, the faculty manager of athletics, the president of the student council, the supervisor of physical education for girls, members of the subcommittee on

athletics, and three members of the alumni.

The superintendent of schools acts as secretary-treasurer of the council, keeping the minutes of meetings, and performing all other duties of the office. He keeps a record of all money received and disburses such amounts as are directed by the council after approval.

Among the duties of the council are to recommend athletics to be included in the program, to plan and approve schedules, to approve elections of team captains, to assist in the assignment of coaches, to purchase supplies and equipment, to audit bills and make payments, to contract for emergency expenditures in sums not to exceed \$50, to prepare a financial statement, and to provide a team physician.

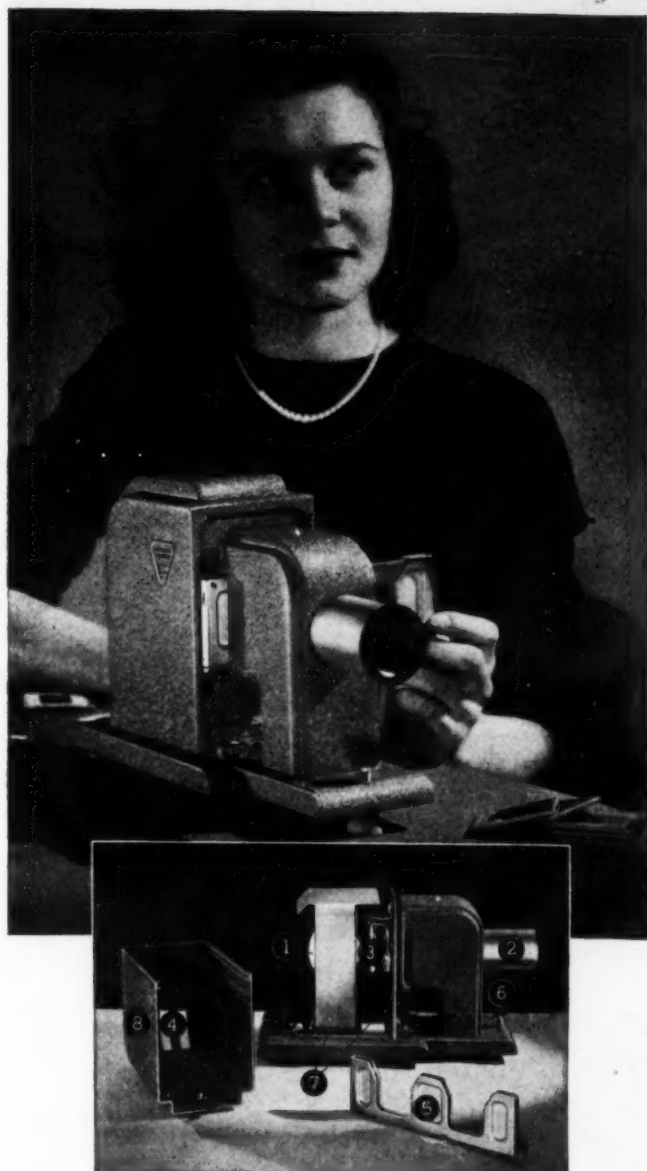
A MOVIE PRODUCED BY THREE COUNTY HIGH SCHOOLS OF MISSOURI

During the school year 1939-40 a movie of the schools of Oregon County, Mo., was prepared and shown as one means of selling the schools to the people of the community.

As a result of the united efforts of Supt. Oscar G. Schupp, of Alton, Supt. Cecil Elliot of Thomasville, Supt. W. O. Durham of Koshkonong, and Supt. Roy S. Dunsmore, of Oregon County, a number of pictures were taken of three of the five high schools in the county — Alton, Thomasville, and Koshkonong. The motion pictures were prepared by Kenneth Ogle, county superintendent of schools of Howell County, who was given valuable assistance and advice at the hands of Supt. W. C. Grimes, of Willow Springs.

The most suitable activities in each high school were filmed, including bands, senior class, and other activities. The school patrons in each district were able to see the improvements made in the other schools which gave them new ideas for improving their own schools. The showing of the films was financed by an admission fee.

It is planned to enlist the interest of the other high schools of the county in a similar project next year. An effort will be made to keep the films from year to year so that it will be possible to trace the progress made each year in the schools.



New

THE B&L 2"x2" SLIDE PROJECTOR

MANUFACTURED to the high standards of performance that characterize all Bausch & Lomb Balopticons, the new B&L 2"x2" Slide Projector projects crisp, brilliant, sharply defined images of black and white or color transparencies. Here are some of its outstanding features:

1. Illuminating system delivers light on the screen, from 26 to 300% more than others against which it was tested.
2. Cinephor Projection Lens, 5" focus, speed f:3.8, corrected for spherical and chromatic aberration and flatness of field. Same type as used in professional motion-picture projection.
3. Triple lens condenser with one lens of heat absorbing glass which protects slides from heat.
4. Ventilating louvres aid in dispersing heat from 150 watt bulb.
5. Slide carrier with spring clamp holds cardboard, metal or glass mounted slides perpendicular to optical axis.
6. Convenient adjustable foot for raising and lowering image on the screen.
7. Light trap around front of lamp-house and base, effectively stops stray light.
8. Compact body is finished in attractive and durable crinkle grey lacquer.

For complete details on the B&L 2" x 2" Slide Projector, send for folder No. E-115 Bausch & Lomb Optical Co., 673 St. Paul St., Rochester, N. Y.

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FOR YOUR EYES, INSIST ON BAUSCH & LOMB EYEWEAR, MADE FROM BAUSCH & LOMB GLASS TO BAUSCH & LOMB HIGH STANDARDS OF PRECISION



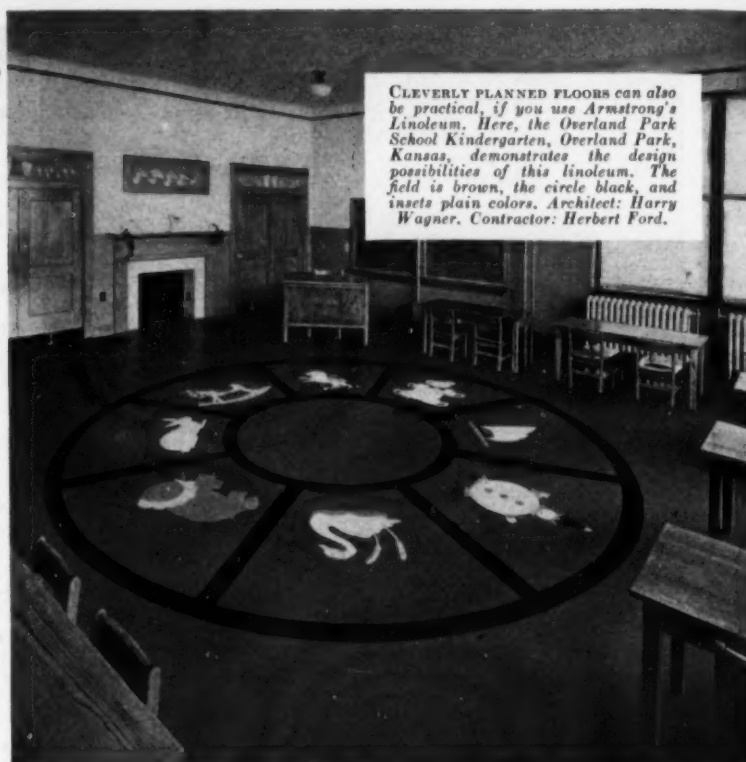
A YEAR-ROUND VACATION FROM FLOOR EXPENSE

WHY not plan a year-round vacation from floor expense . . . for your school? An Armstrong's Linoleum Floor is the ticket. In the first place, this flooring is easily and quickly installed. And once it's laid, you can practically forget it.

There's no costly refinishing to worry you . . . or drain your budget. The colors won't scuff or wear off because they run through the full thickness of the wear-resisting composition.

All the attention an Armstrong Floor needs to give years of satisfactory service is a routine sweeping, occasional washing and waxing. First cost is reasonable—even when special insets like the one shown here are used.

You can let children play on this floor without fear of drafts, splinters, and other common floor hazards. Teachers can be on their feet all day . . . yet feel rested. Over 200 different colorings are available. For complete information, send for *How to Modernize Your Floors*, a free, illustrated booklet. Armstrong Cork Company, Floor Division, 1208 State Street, Lancaster, Pennsylvania.

CLEVERLY PLANNED FLOORS can also be practical, if you use Armstrong's Linoleum. Here, the Overland Park School Kindergarten, Overland Park, Kansas, demonstrates the design possibilities of this linoleum. The field is brown, the circle black, and insets plain colors. Architect: Harry Wagner. Contractor: Herbert Ford.

ARMSTRONG'S FLOORS LINOLEUM

Rubber Tile • Linotile (Oil-Bonded) • Asphalt Tile • Cork Tile • Linowall Wall Covering

Honorable Records of School Administrators V. M. Rogers¹

In the May, 1933, issue of *School Life* there appeared an article giving the names of city school superintendents in the United States who had held their positions for thirty-two years or more, according to the records of the Office of Education. I have made follow-up studies of these men from time to time since that date.

The list included twenty superintendents with a record of thirty-two years or more in the same position. Today that list has dwindled to one active superintendent. A. J. Thackston of Orangeburg, S. C., is the one remaining active superintendent. Of the twenty listed in 1933, ten are still living. Besides Superintendent Thackston, two others are still working: Frederick W. Nichols, of Evanston, Ill., is serving as secretary of the board of education, and Wm. V. Casey, of Boulder, Colo., as superintendent-emeritus, in charge of certain phases of the school program.

Here are the superintendents who are now retired after a period of service of from 35 to 48 years in the same position:

W. G. Coburn, Battle Creek, Mich., appointed 1895.

J. E. Limon, Blue Island, Ill., appointed 1894.

J. A. Gibson, Butler, Pa., appointed 1896.

Frank L. Miller, Harvey, Ill., appointed 1892.

J. B. McManus, La Salle, Ill., appointed 1900.

E. P. Clarke, St. Joseph, Mich., appointed 1899.

Geo. W. Hall, San Mateo, Calif., appointed 1894.

Frederick W. Nichols, retired as superintendent of the Evanston, Ill., schools after serving in this capacity for 48 years. For the past seven years he has been secretary of the board of education. Recently a million-dollar elementary school was named for him.

¹Superintendent of Schools, Boulder, Colo.

A. J. Thackston, or "Cap" Thackston as he is better known in South Carolina, is serving his forty-third year as superintendent of the Orangeburg Schools. Recently a new high school was named for him. "Cap" is the one man of the twenty superintendents reported in 1933, who is still actively engaged as superintendent of the city schools over which he has presided for many years.

Wm. V. Casey, superintendent-emeritus at Boulder, Colo., became associated with the



William V. Casey
Boulder, Colorado.

A. J. Thackston
Orangeburg, South Carolina.

Boulder schools in 1882 and has been on the job ever since. For forty-seven years he has served as superintendent and superintendent-emeritus. He has received the honorary degree of doctor of education from the University of Colorado. "Bill" Casey is actively engaged in schoolwork, even though he recently observed his eightieth birthday, and is serving his sixty-third year as a member of a public school faculty.

To these oldsters of our profession we extend warm greetings and wish for them good health and much happiness.

SCHOOL ADMINISTRATION

♦ The ruling heads of the city governments in Palmyra, Riverton, and Cinnaminson, N. J., changed hands for a few hours on April 27, when seventeen youthful high-school seniors took over the governmental reigns of the three communities. The students assumed the offices of mayor, councilmen, and other representatives of the city government. All three borough heads are members of the independent party which emerged victorious over the rival "good-will" party in one of the most exciting election contests the school ever witnessed.

The planks of both parties stressed that the community-center project should be improved, and they emphasized that a swimming pool should be constructed beside the center. The platform of the "good-will" candidate was built around a tri-community plan whereby all improvements would benefit all three communities instead of one.

♦ State Superintendent J. W. Brooker, of Kentucky, has ruled that superintendents and boards of education must provide the same educational opportunities for the physically handicapped children as for the physically fit.

♦ Somerset, Mass. An integrated course in social studies has been inaugurated in the Pottersville School, in grades three to six. The age of entrance to grade one has been changed from five years and eight months to six years. The change becomes effective September first.



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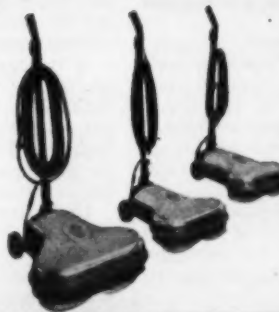
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Teachers' Salaries

♦ Oshkosh, Wis. The school board has given new contracts to members of the teaching staff, to permit salary increases for all persons, with the largest raises going to those in the lowest income brackets. A maximum has been established to apply in specific cases, and no raise will exceed \$250 per year. The additional salary item will reach \$39,000 for the 1940 school term.

♦ Lawrence, Kans. The board of education has included a salary item of \$183,000 in its 1940 budget. Fifty-eight teachers in the lower-income brackets were given increases, amounting to \$3,445.

♦ Elkhart, Ind. The board of education has adopted a statement of policy relative to teachers' salaries, intended to retain and encourage good and superior teachers, and eliminate teachers below the standard.

Under the plan, teachers in the grades and in the junior and senior high schools, with outstanding ability, will be given increases above the maximum for their positions. Teachers who are not yet receiving the maximum salaries will be offered increases of \$50 for the next year.

It is provided that the minimum salary will be \$1,100 for elementary teachers, and \$1,300 for high-school teachers. The maximum will be \$1,500 for elementary teachers, and \$2,000 for senior-high-school teachers. Junior-high-school teachers, formerly paid \$1,700, will be placed in the high-school classification.

Under the schedule, elementary teachers of outstanding ability and performance will be given special consideration for increases not to exceed 20 per cent beyond the elementary salary maximum. High-school teachers will be given increases not to exceed 10 per cent beyond the salary maximum. All teachers who have shown satisfactory teaching ability, will be eligible to receive annual increases of \$50 until they reach the maximum salary for their classification.

♦ Seattle, Wash. Contingent salary adjustments, to restore the salaries of teachers to last year's level, have been provided by the school board in a budget totaling \$6,146,704. Of the total, \$168,771 will be required to maintain salaries at their present level, and remaining \$230,000 will permit further adjustments to bring the salaries back to the level of 1938-39.

♦ San Antonio, Tex. The school board has given notice that it may be necessary to reduce teachers' salaries next year in order to balance the budget. It is estimated that the school system will have \$200,000 less on which to operate in 1940-41.

♦ Owosso, Mich. The school board has given slight increases in salary to teachers in the lower salary brackets. The increases average \$75 per year.

♦ Butte, Mont. More than 250 teachers and principals in the school system will be required to take a pay cut in 1940. A salary cut of 5 per cent has been proposed.

♦ Traverse City, Mich. The members of the school faculty, in expressing a vote of confidence in the administration, have announced their willingness to cooperate in the matter of salaries and teaching contracts for 1940-41. The board had announced that it would be impossible to make satisfactory teaching contracts due to the serious financial situation.

♦ Joliet, Ill. The Joliet Township high-school board has proposed the adoption of a new salary schedule, to be based in part upon the teacher's participation in community activities.

♦ Indianapolis, Ind. The school board has approved adjustments in salaries of teachers, with pay increases ranging from \$50 to \$100 beginning with 1941. In addition to raising some salaries, the board has increased the period of sick pay for teachers from ten to twenty days.

The increases were given to teachers whose salaries during the calendar year 1940 would be in the \$1,050 to \$1,900 range. Other members of the staff who now receive more than \$2,000, will be paid the same salaries in 1941 as in 1940. By making adjustments for teachers in the lower income brackets, practically all whose salaries for 1940 are less than \$2,400 will have been restored to the 1931 level.

♦ Big Rapids, Mich. The school board has adopted a new salary schedule, with salaries arranged on a uniform basis of education and teaching experience. An item of \$69,382 has been provided in the next year's budget to place the plan in operation. While definite salary figures have been set up as a goal, teachers will attain only 88 per cent of those figures next year.

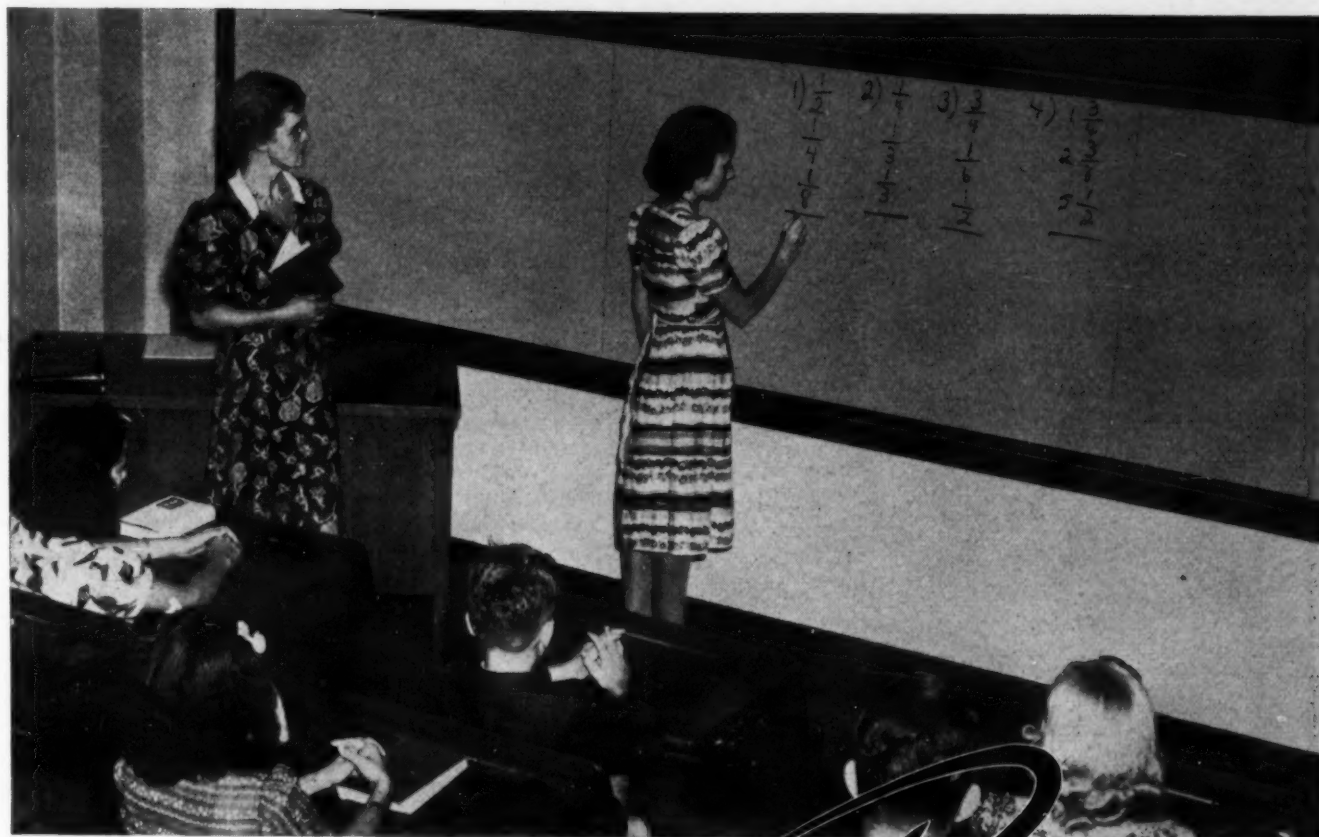
♦ Kokomo, Ind. The school board has adopted a single-salary schedule for teachers, with all salaries equal based on equal training and experience.

♦ Wisconsin Rapids, Wis. The school board has issued new contracts to teachers, with salary increases totaling \$2,600. The individual increases range from \$25 to \$75 per year.

♦ Louisville, Ky. The board of education has discontinued its program of mandatory salary increases to teachers. In adopting its 1940-41 teacher contracts, the board has placed such increases on a provisional basis for the first time in five years. This calls for the same salary rate as last year, with the proviso that any unencumbered funds remaining in the treasury at the end of the year shall be paid pro rata to the teachers deserving increases under the schedule of 1935. While the salary adjustments have accomplished the purpose of removing pay inequalities between teachers of similar position, training, and experience, other factors have made it impossible to guarantee further increases.

♦ Barberton, Ohio. The school board has approved increases in salary for all members of the teaching staff who are not receiving the maximum salary for their group. The increases will range from \$2.50 to \$10 per month, in both the high and grade schools.

♦ Boston, Mass. The school board has begun plans for a revised and more equitable salary schedule for teachers entering the service after 1941. It is expected that there will be adjustments in the schedule in the interest of greater equity for teachers of the future.



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News of Superintendents

● GEORGE C. BUSH, superintendent of the South Pasadena, Calif., schools; WILLIAM SPEERS, business manager of the same schools; JOHN E. ALMAN, principal of the South Pasadena high school, were shot to death, on May 6, by VERLING SPENCER, principal of the South Pasadena junior high school. Spencer also shot to death a male teacher, and wounded a woman teacher and a clerk of the school board.

● G. N. HUFFORD has been re-elected as grade-school superintendent at Joliet, Ill.

● SUPT. WILLIS A. SUTTON, of Atlanta, Ga., has been re-elected for a sixth term.

● MR. W. R. WHITZEL has been elected superintendent of schools at Cherryvale, Kans. He succeeds John P. Sheffield.

● SUPT. D. H. STARDARD, of Cordele, Ga., has been re-elected for the next year.

● SUPT. W. D. WILKERSON, of Bryan, Tex., has been re-elected for the next year.

● SUPT. T. A. SANFORD, of Carrollton, Ky., has been re-elected for a fourth term.

● RALPH E. NOBLE, of Barre, has been appointed State Commissioner of Education of Vermont. Mr. Noble has been released from his recent acceptance of the Springfield Township superintendency and will assume his new office on September 1. Mr. Noble has served as state director of secondary and vocational education since 1935.

● FREDERICK G. WARD, acting superintendent of schools for the past year at Sharon, Mass., has been elected as permanent superintendent of schools.

● SUPT. WARREN A. HANSON, of New London, Conn., has been re-elected for the next year.

● SUPT. JAMES H. RISLEY, of Pueblo, Colo., has been re-elected for a term of four years. Superintendent Risley has completed nineteen years of service in the schools. He went to Pueblo from Owensboro, Ky., where he held a similar position.

● IVAN C. NICKOLAS, of Grosse Pointe, Mich., has been elected superintendent of schools of Dist. No. 98, at Berwyn, Ill.

● WILLIAM D. WALDRIP, superintendent of schools at Savannah, Ill., died at his home on May 8.

● SUPT. E. W. HEOD, of Madison, Ill., has been re-elected for a three-year term, with an increase of \$400 in salary.

● SUPT. G. E. DILLE, of Maplewood, Mo., has been re-elected for a three-year term.

● RICHARD HOUSEMAN, of Hubbardston, Mich., has been elected superintendent of schools at Edmore.

● SUPT. E. L. GIROUX, of Marshfield, Wis., has been re-elected for a two-year term, with an increase in salary.

● MR. A. K. LOOMIS, of Denver, Colo., has accepted the superintendency at Shaker Heights, Ohio.

● SUPT. F. H. MCKIBBEN, of Ithaca, Mich., has been re-elected for another year.

● SUPT. C. A. WEBER, of Galva, Ill., has been given a leave of absence to study for a Ph.D. degree at Northwestern University. H. M. ROBERTSON will serve as acting superintendent.

● SUPT. CHARLES E. TEACH, of San Luis Obispo, Calif., has been re-elected for a four-year term, beginning with July, 1940. During the twelve-year period of service of Superintendent Teach, the school plant has been improved to the extent of one-half million dollars, two kindergartens have been established, a junior college has been provided, a new agricultural department has been opened, music has received increased attention, and the evening-school enrollment has been increased from 1,795 to 4,154 students.

● MR. HAROLD MACKENZIE, of Watertown, S. Dak., has been elected superintendent of schools at Savannah, Ill. He succeeds W. D. Waldrip.

● SUPT. F. J. UHLIG, of Laredo, Mo., has been re-elected for another year.

● MR. W. S. HARWOOD, of Medora, Ill., has been elected superintendent of schools at Lancaster, Wis.

● STATE SUPT. FLOYD I. McMURRAY, of Indiana, has announced his candidacy for renomination on the Democratic ticket.

● SUPT. W. S. GOUDY, of Durand, Mich., has been re-elected for his twenty-seventh term.

● MR. O. H. ENGLISH, of Freeport, Pa., has been elected superintendent of schools at Brentwood.

● MR. BARNEY CATON has been elected superintendent of schools at Roy, N. Mex. He succeeds R. L. Davidson.

● SUPT. C. E. HAWKINS, of Covington, Ga., has been re-elected for the next year.

● MR. C. H. SULLIVAN has been elected superintendent of schools at Eastman, Ga. He succeeds J. Paul Long.

● SUPT. W. H. GRAVES, of East Greenwich, R. I., has been re-elected for another year.

● MR. ARTHUR A. RATHER has been elected superintendent of schools at Ionia, Mich.

● SUPT. THOMAS R. ROBERTS, of Postville, Iowa, has been re-elected for another year.

● SUPT. W. G. RHOTEN, of White Oak, Ohio, has been re-elected for a three-year term.

● MR. GORDON A. GROOMS, of Ripley, Ohio, has been elected superintendent of the Aberdeen-Huntington Township schools at Aberdeen, Ohio.

● MR. A. O. DAVIDSON has been elected superintendent of schools at Springfield, Minn.

● MR. HAROLD J. WILLIAMS, of Spencer, Iowa, has been elected superintendent of schools at Fort Dodge. He succeeds K. D. Miller.

● A luncheon was held in Elizabeth, N. J., on April 4, to welcome DR. RAY E. CHENEY, of River Forest, who will assume the superintendency on July 1. Joseph Higgins, of the board of education, presided.

● HUBERT BEARSS, of Napoleon, Mich., has been elected superintendent of schools at Saline. He succeeds T. M. Clay.

● RALPH HIBBS has been elected superintendent of schools at Columbus Junction, Iowa. He was formerly principal of the high school.

● SUPT. C. T. BALDWIN, of Essex, Iowa, has been re-elected for another year.

● SUPT. A. P. PRATHER, of Earlington, Ky., has been re-elected for a four-year term.

● A. P. HUTCHINS, of Detroit, Mich., has been elected superintendent of schools at Armada.

● V. L. HITTEMORE, of Pinconning, Mich., has been elected superintendent of schools at Tree Oaks. He succeeds H. B. Veneklasen.

● SUPT. J. O. LEWIS has been re-elected head of the schools of Fulton, Ky.

● SUPT. H. R. MCCALL, of Chillicothe, Mo., has been re-elected for his tenth term.

● SUPT. E. D. CLINE, of Dubuque, Iowa, has been re-elected for another year.

● SUPT. CHARLES D. JOHNSON, of Pryor, Okla., has been re-elected for the next year.

● SUPT. GEORGE A. BASSFORD, of Ashland, Wis., has been re-elected for the next year.

● MR. F. G. LOHSE has been re-elected as president of the school board at Boonville, Mo.

● J. D. BOOKS, of Nevada, Iowa, has been elected superintendent of schools at Los Naticos.

● M. H. GORDON, of Viola, Iowa, has accepted the superintendency at Nevinsville.

● DONALD A. LENT, whose dismissal as a teacher a year ago caused a strike of 300 pupils, has been appointed superintendent of schools by the school board of Maynard, Mass. Superintendent Lent succeeds James T. King, who resigned May 5. William Reynolds, who was dismissed with Mr. Lent as a high-school teacher, has also been reinstated. Mr. Reynolds was instrumental in breaking the strike and getting the pupils back in their classes.

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Personal News of School Officials

- MR. E. L. KERCHNER has been elected president of the school board at Warrenville, Ill.
- CHARLES L. MILLER has been re-elected as president of the school board at Mt. Carmel, Ill.
- The school board at Greenfield, Ill., has reorganized with the re-election of C. C. SECOR as president, and J. RUSSELL SHIELDS as secretary.
- MR. WALTER HOUGHIN has been elected president of the school board at Edinburg, Ill.
- MRS. TRUE DAVIS has been elected president of the school board at St. Joseph, Mo.
- MR. C. A. LAVIGNE has been elected president of the school board at Chewelah, Wash.
- MR. RALPH J. RAITT has been elected business manager of the school board at Ventura, Calif.
- MR. WALTER H. BESTE has been elected president of the school board at Clayton, Mo.
- MR. C. H. BURKE has been elected president of the school board at Americus, Ga.
- MR. GEORGE E. JONES has been re-elected as superintendent of buildings at Needham, Mass.
- GEORGE W. DAVIS, secretary of the school board at Tekonsha, Mich., died in a Battle Creek hospital, on April 10. He had served several terms on the board.
- V. E. MCRELAND has been elected president of the school board at Vidor, Tex.
- ARTHUR DUNDAS, president of the school board of Bad Axe, Mich., was guest of honor at a birthday dinner in his home on April 13. Eighty guests were present to congratulate him.
- MRS. A. A. SHACKLETON has been elected president of the school board at Ione, Wash.
- The school board at Viola, Iowa, has elected Mrs. EDNA NEWLIN as president.
- DR. G. T. SINGLETON has been elected president of the school board at Wichita Falls, Tex. He succeeds C. H. Clark.
- ODIS CLARK has been elected president of the school board at Hot Wells, Tex.
- D. S. HARDIN has been elected president of the school board of Harlandale, Tex.
- CHRIS H. MARTIN has been elected president of the school board at Stockton, Mo.

- MR. RICHARD W. PIEPKORN, recently elected as mayor at Alpena, Mich., will also act as president of the school board. He succeeds John Bingham, who had served as mayor and president of the board for eleven years.
- MR. LELAND WHITE has been elected president of the school board at Harlan, Iowa.
- MR. JOHN R. NAUGHTON has been elected president of the school board at Hinsdale, Mass.
- MR. H. GRANVILLE KNOX has been re-elected president of the school board at Groveland, Mass.
- MR. PAUL KLEINDIENST has been elected president of the school board at Granite City, Ill.
- C. S. PEACOCK has been re-elected president of the school board at Monmouth, Ill.
- J. C. GREENERBAUM has been elected president of the school board at Pontiac, Ill.
- J. L. FIFER has been elected president of the school board at Joliet, Ill.
- NORMAN J. MALDANER has been elected president of the school board at Springfield, Ill.
- JOE WESTERMAN has been elected president of the school board at Mound City, Ill.
- The school board at Columbia, Mo., has elected C. MOSS EDWARDS president, and DR. HUGH STEPHENSON vice-president of the board.
- LUDWICK GRAVES has been re-elected president of the school board at Kansas City, Mo.
- CHARLES CRISP has been elected president of the school board at Americus, Ga.
- DR. BURT R. SHURLY was the guest of honor at a testimonial dinner, sponsored by his friends and associates, at Detroit, Mich., on April 25. Dr. Shurly, a member of the board of education, was presented with a gold medal, conferred upon him by the American Society of Ophthalmology.
- MR. F. M. CASE has been re-elected as president of the school board at East Alton, Ill.
- MR. DELOS WELTY, of Malta, Ill., has been re-elected as president of the nonhigh-school district board of DeKalb County, DeKalb, Ill.
- MR. JOSEPH J. BEVINS has been elected president of the school board at Arlington, Mass.
- The school board at Moline, Ill., has re-elected E. W. FREEMAN as secretary, and A. W. HOAGLUND as business manager.
- W. E. STONE has been elected president of the school board at Jacksonville, Tex.
- A. G. LEE has been re-elected president of the school board at Sweetwater, Tex.
- OWEN D. BARKER has been elected president of the school board at Galveston, Tex.
- The school board at Belleville, Ill., has elected HENRY C. G. SCHRADER as president.
- D. A. MARSHALL has been elected president of the school board at Granite City, Ill.
- CARL E. MERKEL has been elected president of the school board at Quincy, Ill. He succeeds W. C. Dowd.
- J. L. DeCLUE has been elected president of the school board at Flat River, Mo.
- LOTHROP PERKINS has been elected president of the school board at Ottawa, Ill.
- GEORGE C. WEBER has been elected president of the school board at LaCrosse, Kans.
- The grade-school board at Rockton, Iowa, has elected DR. J. C. ELLIS as president.
- CLIFFORD ELLIS has been elected president of the school board at Hononegah, Iowa.
- MR. JAMES A. EATON, JR., has been re-elected as president of the school board at Newton, Iowa.
- DELBERT WARNES has been elected president of the school board at Villa Grove, Ill.
- The Harvel Community High School board of Harvel, Ill., has elected H. E. FAHRENHOLTZ as president, and W. K. ZIMMERMAN as clerk.
- MR. MONROE HANNEMAN has been elected president of the Rock Island nonhigh-school board at Rock Island, Ill.
- MR. L. D. SCHEU has been elected president of the school board at Ses Cliff, N. Y.
- MR. A. C. STANFIELD has been re-elected as president of the Pana Township high-school board at Pana, Ill.
- MR. F. M. CASE has been re-elected as president of the school board at East Alton, Ill.
- MR. MAX NESTLER has been elected president of the school board at Spring Valley, Ill.
- MR. G. G. ROBERTSON, who has been re-elected business manager of the board of education at Pueblo, Colo., has been serving in that office for twenty-two years. He was first elected in 1918. The other members of the board are E. D. HOFFMAN, president; W. E. BURNEY, vice-president; DR. E. W. SPENCER; DR. GEORGE RICE; and D. B. CHASTEEN.
- MR. BENJAMIN W. BOLDT, a member of the school board of Hay Creek, Minn., for twenty years, died at a hospital on April 20.
- MR. ELLSWORTH B. BUCK, who resigned as Staten Island member of the New York City board of education in June, 1939, has been again appointed by Mayor LaGuardia for a seven-year term. His return to the board is unique in the annals of the board, since it is the first time that a member has been renamed after resigning from office.



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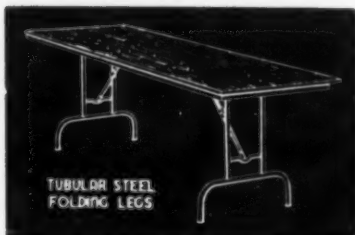
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Teachers and Administration

♦ Minneapolis, Minn. The board of education, which has gone on record favoring a compulsory retirement age for teachers, has begun a two weeks' study of proposals to set the retirement age between 65 and 68 years. The board postponed a vote fixing the age of retirement, due to the fact that each board member had ideas of his own which could not be compromised.

Henry J. Bessesen, a member of the board, offered a resolution, calling for salary reductions of teachers at 66 of \$600, and \$100 a year for the following years.

♦ Chicago, Ill. Thirteen teachers on the school staff were automatically retired at the close of the school year in June. All of the teachers had reached the retirement age of 65.

♦ Fall River, Mass. The city teachers, after a vote, have informed the school board that they prefer a 40-week payment plan instead of the proposed 52-week plan. Of 506 votes cast, 370 were in favor of the 40-week plan.

♦ Haverhill, Mass. The school board has refused to suspend or change its regulation pertaining to the payment of principals during illness. The rules of the board provide for payment for ten days' sick leave in each half of the school year.

♦ Greenwich, Conn. The school board has voted to employ additional teachers in the high school on a cadet basis. The teachers will be employed on a month-to-month basis, with tenure depending on the need for permanent teachers. Each cadet will receive a salary of \$100 per month.

♦ Galveston, Tex. The school board has voted to abide by its rule, providing for the retirement of teachers and principals who reach the age of 70. The rule will become effective with the beginning of the new school year.

♦ Sherman, Tex. The school board has reaffirmed its rule of four years ago, that teachers must retire upon reaching the age of 65. The rule will become effective in 1941.

♦ Canton, Ill. The school board has voted to rescind a rule, requiring the retirement of married women teachers who are eligible for pensions after 25 years' service, and dismissal of single teachers at 65 years. The rescinding of the retirement rule does not affect the dismissal of women teachers who marry while employed as teachers.

♦ Newton, Mass. Seven teaching positions will be eliminated next year in the interest of economy.

♦ Brookline, Mass. The school board has considered a proposal to discontinue employment of married women as teachers.

♦ Savannah, Ga. The school board is considering a new rule, requiring all school employees to pass a health examination once every two years. It is proposed to make the biennial examinations compulsory, and no employee will be employed for the fall term until he has a physician's certificate. Employees who have had an examination within two years and who have it on file in the school office, will not be asked to stand a new examination this year.

♦ Newburyport, Mass. The school board has adopted a new rule, making it impossible for candidates for teaching positions, without experience, to obtain appointments. Under the rule, candidates for elementary, primary, and high schools must hold a degree from an accredited college or normal school. Candidates for the grade schools must have had at least two courses in elementary or primary education methods, and must have had one year's teaching experience, not including practice teaching.

Candidates for high-school jobs must have majored in the subjects to be taught, and must have had two years' teaching experience, not including practice teaching.

♦ Savannah, Ga. The school board has received a recommendation from the instruction committee, calling for the approval of a new plan for sabbatical leaves for teachers.

Under the plan, members of the teaching staff,

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after seven years' service, are to be eligible for a sabbatical leave for one or two semesters for study, travel, or other method of improving their teaching equipment.

Teachers desiring to avail themselves of the privilege must make a request to the superintendent in writing, at least three months before such leave is desired. Any employee given a sabbatical leave will be paid the difference between his regular salary and the pay of a substitute. Not more than three sabbatical leaves may be granted to any teacher. The superintendent may deny any request for sabbatical leave in the interest of the school system.

♦ Leavenworth, Kans. The school board has approved a proposal of the teachers' committee, which makes retirement for teachers compulsory at the age of 70, and optional at the age of 65.

♦ Alliance, Nebr. Beginning with September 1, all teachers in the city schools will be paid in

twelve equal monthly installments. Under the plan, teachers are insured a regular income through the year, and there will be no gap between the final payment at the close of the spring term and the opening of the fall term.

♦ Delphi, Ind. The Delphi-Deer Creek Township board has adopted a rule, requiring that all teachers with less than four years' college or university training attend summer school at least once in every three years. The rule affects teachers in the first eight grades.

♦ The new retirement system for Kentucky teachers, which goes into effect on July 1, will not distribute retirement payments until July, 1942, due to the condition of the retirement fund. Funds for the retirement law will come from two sources—payments by members and payments by the state. Teachers' contributions range from 2 to 4 per cent, according to the age of teachers.

LOOK AT THIS RUSH ORDER—IF I STOP TO INVESTIGATE THE MARKET I WON'T GET THE MATERIAL HERE ON TIME—IF I DON'T, SOMETHING WILL BE WRONG AND I'LL GET THE BLAME!

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OFFER SHORT COURSES FOR JANITORS

How long a school building will continue to look new will depend on many things: on whether the school board provides proper custodial service; on whether the custodian knows best how to maintain the service; on whether the work is planned with the least effort and a minimum amount of time.

Each year, during the summer months, a custodian training school is conducted in certain states, under the sponsorship of the officials of the state university.

To date, Kansas has announced three custodian training schools. Wichita will have a course from June 3 to 7; Topeka, from June 10 to 14; and Hays, from June 17 to 21.

Six colleges and universities will also offer courses. The University of Minnesota will conduct a course from June 10 to 14; the Oklahoma A. & M. College, Stillwater, will offer a course from June 10 to 15; Columbia University, New York, will provide a course from June 24 to 29; Iowa State College, Ames, will offer a course from June 18 to 21; the University of Florida will conduct a six weeks' course, beginning June 3; the Illinois State Normal University, Normal, and the Southern Illinois Normal University, Carbondale, will also offer short courses.

Purdue University will offer a two days' conference on June 25 and 26.

During the academic year 1939-40, a total of nine cities conducted special trade extension courses either in day or evening classes. Among these were Tallahassee, in Dade County, Fla.; Burbank, Long Beach, San Bernardino, San Diego, Santa Cruz, Redondo Beach, Downey, and Whittier, Calif.

SHORT COURSE FOR JANITORS

The Division of Vocational Education of the State Department of Education at Frankfort, Ky., has begun plans for a series of conferences of school janitors, to be held in the eleven educational districts during July and August. The course, as planned, will run for two weeks, and

will be in charge of trained conference leaders.

Instruction will be given by lectures, demonstrations, and conferences. While there is no instruction cost, a fee of \$3 will be charged for each member in attendance. The subjects to be offered include housekeeping, heating and ventilation, boiler operation, electrical equipment, building maintenance, and safety and hygiene.

NEW ADMINISTRATION BUILDING OF THE NEW YORK CITY SCHOOLS

The new board-of-education headquarters at 110 Livingston St., Brooklyn, N. Y., were occupied in part in May, when a number of the school departments moved in and were assigned their quarters. Among the bureaus who are now located in the building are the Bureau of Reference, Research and Statistics, the Bureau of Plant Operation and Maintenance, the Division of Vocational Investigation, Guidance, and Placement, the office of Director of Music, the Divisions of Health Education, Physical Handicapped Children, Sewing, the Attendance Bureau, the Bureau of Recreational Activities, and the Boards of Examiners or Personnel Division.

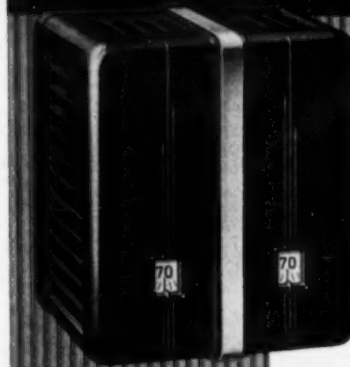
Other offices and bureaus will occupy space in the building early in July. The furnishings of the board of education have been moved to the new building, where the annual meeting and election of officers was held on May 14.

NEW PUPIL-REPORTING PLAN

During the school year 1939-40, the public schools of Allegan, Mich., enjoyed the benefits of a new plan of reporting to parents, which uses the personal interview between parent and teacher.

Under the plan, at the end of the seventh week of school, parents are sent notices to come to the school at a stated time to talk with the teacher of their children. The teacher shows samples of the children's work, and offers other information relative to the children. A written report in each case is sent home at the end of the first half year's work.

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The parent-teacher conferences have proved very helpful and it is urged that parents feel free to consult with the teachers at any time relative to matters concerning their children.

DR. HOMER W. ANDERSON TO ST. LOUIS

Dr. Homer W. Anderson, superintendent of schools at Omaha, Nebr., has been elected superintendent at St. Louis. Dr. Anderson was one of the six outstanding superintendents of schools recommended for the position by a special committee of educational experts.

Dr. Anderson was born in Chaseburg, Wis., 53 years ago, and is a graduate of Highland Park College, Des Moines, Iowa. He received his master's and doctor's degrees in education from the University of Iowa. He has been nationally prominent for his instructional research and statistical work, and for his administrative work in Dubuque, Denver, and Omaha.

• SUPT. LEON C. STAPLES, of Stamford, Conn., has been re-elected for a three-year term.

• SUPT. AARON F. DEMORANVILLE, of Johnston, R. I., has been re-elected for the next year.

• MR. HENRY TURNER, former president, and for many years a member of the board of education of New York City, has resigned because of lack of time to give to his school job. During the six years of his membership Mr. Turner served the city intelligently and energetically. Mr. James G. McDonald, president of the Brooklyn Institute of Arts and Sciences, will succeed Mr. Turner.

• MR. MARTIN FERENTCHAK has been re-elected president of the board of education of Dist. 104, of Argosummit, Ill.

• The school board of Rushville, Ill., has reorganized with the election of GUY H. MILLER as president; HELEN WEINBERG as vice-president; and DALE DAVIS as secretary.

• DR. HENRY H. HILL, superintendent of schools at Lexington, Ky., is the recipient of the 1939 award of the Bluegrass Automobile Club, because of his work in safety education. He was chairman of the safety commission of the American Association of School Administrators and was connected with the preparation and publication of the yearbook on safety education.

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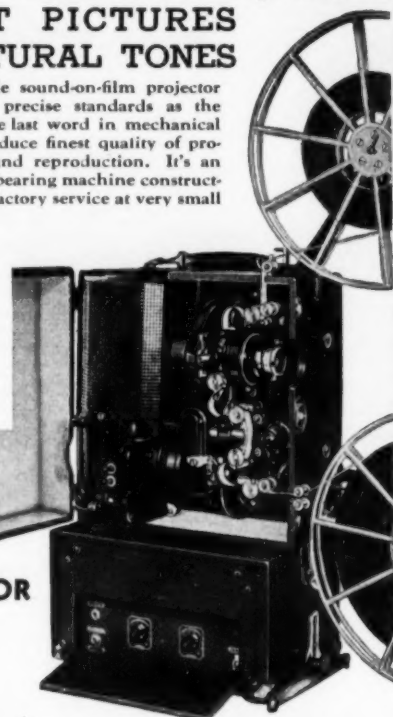
Amplifier is part of projector and mechanism is permanently mounted in case. Easy to operate—wide door makes threading simple. May be combined with Holmes speaker unit and microphone for public address systems, or use in auditoriums, gymnasiums, athletic fields, or with electric turntable to teach music or dancing.

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New Books

Length of School Sessions and Class Periods in Public Schools, 1938-39

Paper, 71 pages. Bulletin No. 2, March, 1940. Issued by the Research Division of the National Education Association, Washington, D. C.

A statistical study of the number of days schools actually were in session in 1938-39. The shortest year, according to the report was 160 days in Group I cities, and the longest year was 200 days.

Thirty-seven of the 137 cities reporting in Group II indicated changes in the school term during the past decade. In 27 systems the terms were reduced during the depression years.

The findings indicate that there is a great variety in time schedules in both elementary and secondary schools. The length of the class period is far from being standardized, and it is doubtful if anyone knows what is the best length for class periods.

Using Words: An Enriched Spelling Program

Fourth Year. Billian E. Billington. Cloth, 40 pages. Price, 48 cents. Silver, Burdett & Company, New York, N. Y.

Uses the plan of a five-day cycle for learning, using, testing, and reviewing the words in each lesson. A feature is a "spelling dictionary" to be used as a source for meanings and pronunciation of some six hundred words.

Central Sound Systems for Schools

Prepared by W. M. Hall and Paul C. Reed. Paper, 69 pages. Published by the Committee on Scientific Aids to Learning, 41 East 42nd St., New York, N. Y.

School administrators will be interested in this report, which seeks to give concise, nontechnical information about sound systems, what they can do for the school, and what services the school expects it to perform. The first chapter suggests the advantages and disadvantages of the sound system, while the remainder of the report is given over to a description of the facilities provided by central sound systems, a discussion of the technical aspects of the system, and to typical specifications.

Report on the Progress of the WPA Program to June 30, 1939

Prepared under the direction of Emerson Ross, director of the Division of Statistics, and Dwight B. Yntema.

Paper, 177 pages. Published by the Work Projects Administration, Washington, D. C.

A report reviewing the activities of the WPA in the light of its primary responsibility—that of providing work for the unemployed on useful public projects. It summarizes the project accomplishments and operations of the WPA, the project employment provided, and the expenditures which have been made. The final chapter discusses the various programs providing employment on federal work and construction projects and public relief. Approximately one fifth of the WPA building projects were school buildings, including vocational buildings, new elementary schools and additions.

Living Your Life—Group Guidance

By Claude C. Crawford, Ethel Grace Cooley, and C. C. Trillingham. Cloth, 443 pages. Price, \$1.56. D. C. Heath & Company, Boston, Mass.

The purpose of this study of school and home life is to orient the student in high school, at home, and in social life generally. It discusses the problems of study, of personality, of leadership, of etiquette, of dates and boy-girl problems, of citizenship, of vocations, of thrift and money, of safety, and of the use of leisure. The treatment is clever, based on a thorough knowledge of present-day boys and girls. All in all, the book leaves the reviewer cold because of the failure to get at fundamentals; it leaves the student quite without a fundamental philosophy of life and of its higher purposes.

Wild Bird Neighbors

By Alvin M. Peterson. Cloth, 263 pages. Price, \$2. Bruce Publishing Co., Milwaukee, Wis.

Thirty-two varieties of common North American birds have been the author's neighbors in his retirement on a Wisconsin farm. He shares with his readers the pleasures of many years of observing and safeguarding these pleasant, useful, and interesting chaps as they build their nests, rear their young, fight their enemies, kill insects and other pests, and serve generally to make country life more happy.

A Manual for Observation and Directed Teaching

By William Giles Campbell. Paper, 132 pages. Published by the University of Southern California Press, Los Angeles, Calif.

This manual, prepared after four to five years of study and research, seeks to outline those phases of the course that in the past have caused great difficulty and on which most assistance is needed by students. It begins with an outline of general requirements and then proceeds to discuss relationships and responsibilities, pupil personnel, procedures in student teaching, physical and personal

qualifications of a teacher, discipline, lesson plans, course of study, visual aids, drills, reviews, examinations and marks, supplies and equipment, and means of securing employment.

All Aboard

By Arthur I. Gates and Mary M. Bartlett. Paper, 48 pages. The Macmillan Company, New York, N. Y.

A test to determine the reading readiness of six-year-olds.

Your Automobile and You

By Roy A. Welday. Cloth, xiv-251 pages. Price, 88 cents. Henry Holt & Company, New York, N. Y.

This semester course in automobile driving seeks not merely to develop the ordinary skills in caring for and driving with due caution, but to provide all the facts and principles which will enable a driver to select a car, manage its financing and insurance, and develop those attitudes which make the driver courteous, safe, law-abiding, and reasonable at all times.

An Occupational Classification for Research Workers

By Philip J. Rulon and Robert J. Blanton. Paper, 47 pages. Price, 50 cents. Published by the Graduate School of Education, Harvard University, Cambridge, Mass.

Few problems are more perplexing to the personnel research worker than the problem of classifying occupations. Such problems call for manipulation of large bodies of vocational data pertaining to college graduates.

This classification is intended to permit the easy isolation of various groups, including fields of concentration while in college, college grades, and extracurricular activities. It offers a three-figure designation of occupations, covering the general level of work, the kind of work or conditions under which it is done, and professional pursuits.

Wide Wings

By Arthur I. Gates, Miriam B. Huber, and Celeste C. Peardon. Cloth, 344 pages. Price, \$1.80. The Macmillan Company, New York, N. Y.

A third reader and teachers' manual.

Methods of Determining Reading Readiness

By A. I. Gates, G. L. Bond, and D. H. Russell. Paper, 55 pages. Price, 60 cents. Bureau of Publications, Teachers College, Columbia University, New York, N. Y.

This study, begun in 1934, was designed to test the value of every type of test, rating, examination, or other means of appraisal which had been suggested for predicting reading progress. In addition, it was planned to study certain related problems, such as the usability and reliability of the tests given at the time pupils enter school.

HOW A LARGE SCHOOL SYSTEM MEETS THE PROBLEM OF INDIVIDUAL DIFFERENCES

(Continued from page 36)

It aims to interpret the industrial and trade world to boys in academic high schools. Boys need to study many kinds of industries. The student works individually at times, or, as a member of a group where he may develop leadership. The course provides craft experiences for leisure-time interests, and promotes development of the home workshop. This new "experience laboratory" is divided into eight educational areas: (1) planning, (2) metal-work, (3) transportation, (4) housing, (5) ceramics, (6) textiles, (7) graphic arts, and (8) electricity. Certainly, the Industrial-Arts Laboratory meets the individual differences of the 8,000 ninth-grade boys who are taking this exploratory course.

Careers Self-Studies

Perhaps no one other course does quite as much along the line of catering to individuals as does the new *Self-Appraisal and Careers Study Course* in the Chicago high schools. Administrators felt that there was a definite need for a course of this type if students were to be prepared for life after they were graduated. No attempt is made to formulate final plans for a specific career in later life for each student. Rather, the emphasis is upon helping the student realize his abilities and interests to the full, and upon showing him the numberless vocational opportunities open to him.

The objectives of the Self-Appraisal and Careers Study Course are significant. The course aims to give the student a background of the techniques necessary for adequate self-guidance in educational planning and in the choice of careers after high school. The student is given a knowledge of terms, source materials, and organization for the study of careers. He studies man's interdependence in the working world. Significant occupational trends are brought to him. The student is given actual contact with men and women engaged in various occupations in Chicago. Another objective of the course is the development of the techniques for self-appraisal. The student is helped to an understanding of his own behavior, based on a knowledge of the factors which aid mental growth. He becomes aware of the many individual differences which exist. By working with a counselor on the interpretations of his test data, the student understands why he is more fitted for some vocations than he is for others. The follow-up counseling in the 4A semester helps him with his immediate plans either for college, or for further training in fields of industry. If he is not going on, he is registered with the school placement agency through which he may obtain employment.

Those teaching the Self-Appraisal and Careers Study Course receive a great deal of specialized guidance from the Bureau of Child Study. Methods of interpreting test materials, techniques of the personal interview, and individual case-study methods are determined by the trained personnel of the bureau. The Bureau of Child Study also supplies a bookshelf for students and teachers which contains materials on vocations and careers and avocations in general. The Department of Occupational Research also functions definitely in the planning and carrying out of this new type course. This new course makes use of radio programs, assembly speakers, visits to offices and other places of business.

The part poor health plays in individual problems of maladjustment has received only scant attention until recently. In a report of the youth commission in 1937, a statement was made to the effect that 75 per cent of all students had some kind of physical defect. True, not all defects were serious in themselves, but left untended they may have become so. We cannot hope to have young people with healthy minds unless we help them to have healthy bodies. Therefore, Chicago has installed an ambitious *program of health* in the schools. Health is being offered as a separate course in conjunction with gymnasium classes in the high schools. A student is required to attend

two classes a week in physical education and one in health. Students are encouraged to keep health charts—an approach which does much to make them health-conscious. The health program in the Chicago high schools has been supplemented with specific health tests for each student. Tuberculin tests are administered with the consent of parents. Dental inspection is held for all. Eye examinations are part of the plan. The "Whisper Test" locates those students below par in hearing. Corrective treatment has followed the testing program in practically all of the cases. The results of the above tests proves beyond a doubt that in any system of education interested in individual differences, emphasis must be placed on the teaching of good health habits, and the correcting of poor ones.

Home Rooms and Better Study

The *Home Room* is another definite factor in the Chicago plan of individual guidance. A teacher now keeps the same group of students throughout the four years of secondary education. Her first job is to get to know each member of her school family. In order to fully understand the young people around her, the home-room sponsor, wherever possible, attempts to establish a happy relationship with the home of the student. It is the teacher plus the home which makes for good citizenship in young people. The activities in the home room are built around the needs and interests of its members.

Supervised study is one of the individualized teaching techniques now in use in all Chicago schools. The classroom is no longer a place where recitations are merely heard—it is a laboratory where each individual is guided at his own level. A student is helped to see assignments in relationship to his own problems and his own capacity to cope with them. It must always be remembered, that when tasks are assigned *above* the ability of the student, his sense of futility is deepened. All homework in these new laboratory classrooms is in the form of unfinished business, the beginning of which took place at school where the assignments were made, and where a desire was stimulated to further completion.

As in the elementary school, Chicago high-school teachers have recognized the fact that behind poor study habits lurk poor reading habits. To care for the many differences in the rate, speed, and comprehension of reading among high-school students, classes in remedial English have been organized. The Chicago plan for teaching reading is used. Reading material is individualized, and, with the aid of student officers, the class teacher is free to act as guide. The manner in which the Chicago schools handle the problem of improvement in reading is indicative of the interest displayed in meeting the challenges which arise in any program which attempts to provide for individual differences.

Self-direction is the desired end of all education. Yet we cannot help a student to become self-directing unless we put him on his own and offer education possibilities in which he may find himself. In order to give the student practice in self-guidance, *rigid courses have been discontinued in the high school*. Sequences now take their place, allowing numerous opportunities for choice by the student. Core subjects are included, but the elective possibilities for each individual allow him that sequence of studies which is best suited to his interests and aptitudes.

The Junior Colleges

In the three city junior colleges—Wright, Herzl, and Wilson—there are some 4,300 students crying out for individual attention. A recent survey conducted by the Department of Occupational Research showed that only 25 per cent of the students who attend junior college go on to senior college. Business and industry absorb the other 75 per cent. One of the chief concerns of our junior college then is whether the courses offered are such that the graduates will be valuable to industry when they leave school. An objective of the college is to offer *terminal training* which will prove valuable to students seeking employment in the Chicago area.

In general, the courses under investigation fall

ILLINOIS SCHOOL CUTS FLOOR MAINTENANCE TIME and LABOR 25%

... from Ross Federal Research Co. Report No. 1-134 (Independent Investigators)



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"HOLDS UP" BETTER ... TWO COATS MAINTAIN FLOORS FOR ENTIRE YEAR

"Our experience shows that Car-Na-Var holds up better," reports the Centralia Township High School, "and has reduced our time and labor costs by 25%. Two coats applied once a year maintain our 54,304 sq. ft. of maple floors. Car-Na-Var does not mar or scratch; it acts as a wood treatment; and in traffic lanes it doesn't have to be redone so often." Car-Na-Var combines varnish with wax. Applied with lamb's wool mop. Dries in 30 minutes.

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Super-powered by special geared head ball-bearing motor for speed and efficiency. Perfectly balanced...a woman can run one all day without tiring. 9 years on the market and the first Silent Chief has yet to wear out! 5 models; 4 sizes.



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You can see Tennant-Maintained floors in your locality. Our field representative will gladly make an inspection of your floors without obligation on your part and will recommend the proper treatment and maintenance for your particular requirements.

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into two groups—business and scientific. Two courses are now being offered in the business group—general business and secretarial. Courses in merchandising and banking are being considered. Investigators are attempting to determine the need for scientific courses which train nurses, technicians, and engineers. It is the intention of those in charge to put any new terminal courses on a semi-professional basis. *This means that any specific training in practical fields will be supplemented by general education.* A survey among industrial concerns has revealed that junior college students having this combination of training will be especially valuable in productive lines of work. As elsewhere, stress in the city junior college is placed upon the individualization of instruction.

The present program of individual guidance has been in progress for the past three and one-half years. During that time there has been constant revision to meet changing needs. The program has been successful to date chiefly because it is organized around the generally accepted concepts of pupil developments. The guidance service in the Chicago public schools makes use of the fact that the student learns by doing. It offers many opportunities for each individual student to put into practice what he has learned. One of the finest outcomes of Chicago's attempt to meet the problems of individual differences is that *the student in each case has come to know himself, his interests and abilities—his likes and dislikes.* Competent guides have endowed him with a new respect for his own personality and power of achievement. Teachers with foresight have helped him find his place in life.

It is no easy matter to meet the multitudinous problems which arise when a school system of over half a million children attempts to individualize instruction. We feel, however, that we are going in the right direction. With the cooperation of you good people in near-by institutions of higher learning, much may be done to make school a vital part of life—and to make the world a worth-while place for the half million whom it is our privilege to serve.

New Rules and Regulations

♦ The board of education of Hammond, Ind., has sent its employees a resolution recently adopted, which forbids them to participate in political activities on school grounds. The resolution also says that no person shall be permitted to enter a school building for the purpose of soliciting for political purposes. The order closes with the statement that "Said employees of this school city shall have entire liberty of political action when not engaged actively in their employment, always assuming that any such political action shall not be of such character or type as to affect the usefulness of such employee in his or her respective capacity. The right of employees to vote for the party and candidates of one's choice in any election shall not be questioned, abridged nor denied."

♦ Greeley, Colo. The school board has adopted a new rule governing summer-school attendance for teachers. The rule reads: "Every administrator and teacher who have not attended or taught six weeks or more of summer school in the past three years will be required to attend not less than four weeks of summer school by September 1, 1941. Courses are to be approved by the principal or the superintendent. Travel approved by the superintendent may be taken in place of certain summer school requirements."

♦ A motion presented to the school board of Salem, Mass., to the effect that all sessions of that body be open to the public, was voted down. The present rules provide that the committee may go into executive session whenever its members deem it proper to do so. There has been no executive session in several years but the board believes that situations may arise when such sessions may be deemed necessary.

♦ Valdosta, Ga. The board of education has adopted a rule, giving the superintendent of schools full authority to employ, suspend, and

dismiss teachers in the schools at will. Under the rules, the executive responsibility for the operation of the school is placed under Dr. A. G. Cleveland, the superintendent.

Under another rule, no teacher may hereafter be employed who is related by blood or marriage to any member of the board, or any officer of the school system. The rule applies to future teachers, and not to those now employed.

♦ The school board of Covington, Ky., has ruled that political activities shall be barred from the use of school buildings.

TEACHERS' SICK-LEAVE REGULATIONS
The board of education of Two Rivers, Wis., recently adopted the following sick-leave regulations:

1. Each employee shall be granted a sick leave of ten days per year for absence due to personal illness, serious illness or death of an immediate relative. (Immediate relative to be interpreted as wife, child, brother, sister, parent or guardian.)

2. Five days of unused sick leave per year may become cumulative up to a total of sixty days, said cumulative sick leave to be used for absence due to prolonged illness only.

3. In case of quarantine due to a communicable disease, which is directly traceable to the schoolroom, the board shall pay the full amount of the salary due the employee regardless of sick leave. The city health officer shall be the sole judge regarding the responsibility of the board in the application of this section.

4. Teachers and other employees, who wish to take advantage of the cumulative sick-leave provision, shall present a statement from a practicing physician certifying said teacher's physical fitness to do the work assigned. Such statement shall be presented annually to the city superintendent of schools by October 1, beginning 1940.

5. This sick-leave regulation shall be operative beginning July 1, 1939, and retroactive to July 1, 1933, for the purpose of computing cumulative sick leave, which shall apply to illness subsequent to July 1, 1939.

ACME SUPER-VISIBLE



SCHOOL EXECUTIVES: May we send you complete information regarding the new ACME Super-Visible Record Equipment? It is unusually **LOW** in initial investment and operating cost! Savings of Record SPACE are amazing ... 100 large to 1014 small Record Cards are held visibly and vertically in **ONE INCH** of Cabinet Space! Available in many types of units, Super-Visible makes clerical work easier and faster ... all units are simple and convenient to use.

You will find that ACME Super-Visible offers outstanding advantages in the maintenance and use of your Records. Our School Systems Department will be glad to send complete Catalog and prices. Ask for samples of the kind of Record Forms in which you are interested.

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SCHOOL-BOARD MINUTES OF ONE HUNDRED YEARS AGO

(Concluded from page 18)

tober 20, 1851: Completed taking the annual enumeration of the district and found the number of *white* youth between the ages of 4 & 21 to be 37, male 26, females 11."

April 19, 1852, witnesses the birth of a library: "The directors allowed R. C. Taylor forty-two cents for collecting tax and gave the district clerk an order for \$10.25 the amount of the tax now collected that he might expend it in the purchase of books."

"July 9, 1852 — I bought 20 books for school district library for which I paid \$10.25. The following books were purchased: History United States, Pictorial Greece, Rome, England, France; Washington, 16 months gold diggings, Indian Captives, Costumes Europe, Costumes America, Thoughts for Young Men, Life of Franklin, Biography of Eminent Men, Part I, Part 2, Wonders of the Ocean, Art, Simons the Tartar, Young Man's Book, Lives of Mary and Martha Washington, First Impressions, discount 20%."

"Library opened July 26, 1852, drawing at 8 o'clock."

"December 16, 1852 — By resolution of the board of Education the books must be returned to the board of Education on the 3rd Monday in April and quarterly thereafter under a penalty of 3 cents per day for each day's delay per book."

From 1852 to 1864 the record consists of small entries naming the teachers and directors.

December 6, 1864, records the first use of coal. Men to chop wood were probably hard to find. "December 6th — Give A. B. Moor order for a ton of coal." The price is not mentioned. Wages also went up during the war.

"March 7, 1866 — Give Frank Duthick certificate for teaching winter school 4 months 28 pr. amount \$112.00."

An entry of 1870 shows the first division of teaching: "October 3, 1870 — agreed to hire Mr. Orlo Hubbel to teach graded school in said sub district and also furnish a teacher in the primary department of said school at the rate of \$90.00 per month, said teachers to board themselves.

The last entry in the book is made under date of April 4, 1879, fifty-one years from the date that this article is written. It is very brief, listing the directors elected.

A perusal of this interesting account of backwoods education makes one wish that the citizens of today might become as interested in education as those of a hundred years ago.

THE ADVANTAGES OF AN ACTIVITY PROGRAM

(Concluded from page 24)

c. Reach out beyond their present power while remaining within their interests.

"Educational possibilities of activities and projects are important

a. They help children to work and play satisfactorily together



VOGEL
PATENTED

School Closets

The Vogel Number 10 Closet has won the right to leadership through years of active service in Schools — East, West, North, South — everywhere.

Rugged construction with fewer moving parts guarantees long, trouble-free operation. Low water consumption — less than four gallons for a powerful flush — offers further economies when water costs are a considerable factor.

Furnished in two types: Vogel No. 10 (illustrated) Syphon action, vitreous



china bowl, heavy bronze and nicked brass hardware, enameled drum shaped pressure tank. Vogel No. 10-A, same specifications as No. 10 except for concealed pressure tank.

JOSEPH A. VOGEL COMPANY

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b. They develop initiative, self-reliance, and a sense of responsibility to a job or social situation
c. They give the happiness that comes through self-activity

d. They are full of opportunities for growth of intellectual interests and in habits of thought.

"Learning results from activity because:

a. Learning conditions are met

b. Socially needed characteristics are built

c. Intent and attitude are at their best

d. Moral strength is developed

e. Strong characters are built through the acceptance of responsibility

f. Thinking is stimulated

g. Attendant learnings and attitudes are taken care of.

"There should be both individual and group activities.

"The crux of the new education is purposeful activity."

Summary

The advantages of a well-planned activity program may be summarized as follows: (1) It fosters the development of independence, cooperation, and responsibility of the learner. (2) It recognizes the differences of individuals in capacities, interests, background, and power, and attempts to help each child in accord with his needs and capacities. (3) An activity program takes advantage of real-life situations and attempts to correlate learning closely with reality. (4) The values of self-controlled physical and mental activity are recognized and utilized in each child's education and training. (5) A well-ordered activity program promotes growth and development of well-balanced personalities, just as a poorly devised program might permit the growth of unfortunate personality traits.



Filmosound Academy

Like all Filmosounds, now incorporates new *Safe-lock Sprockets* and *constant-tension take-up*. Whether you must serve large, medium, or small audiences, with sound or silent film, there's just the right projector in the Bell & Howell line, precision-built by the makers of Hollywood's professional movie equipment.

New Bell & Howell SAFE-LOCK Sprockets Prevent the Cause of Film Damage

Now, with a new, improved Filmosound, operation can be delegated with complete assurance that film won't be damaged. For the new SAFE-LOCK Sprockets can't be threaded other than correctly! Incorrect procedure leaves the film *outside* the guard, *out of contact* with the sprocket teeth, where it *can't* be torn. And once film is correctly threaded, it can't jump the track. Thus Bell & Howell engineers have positively eliminated errors in threading—the last cause of film damage.

HOW SAFE-LOCK SPROCKETS WORK



1. Put film approx. midway in place on film drops, emerges film can't get off safe-lock sprocket. 2. Flip the guard. 3. Release guard, film drops, emerges film can't get off sprocket teeth.

NEW FILM TAKE-UP further simplifies operation

A new, self-compensating, constant-tension take-up further simplifies Filmosound operation, further protects film. Regardless of the size of the reel or how much film is on it, this new take-up automatically maintains exactly the proper pull. And it rewinds without twisting or other handling of belts.

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B & H Visual Education Specialists, distributed as mapped, are fully informed, capable, ready to help you solve any school motion picture problem. This staff is but one expression of Bell & Howell's complete service to schools, which also includes renting and selling of films and supplying cameras and accessories as well as projectors.

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1614 Larchmont Ave., Chicago, Ill.
Please have your nearest Visual Education Specialist call to help me with this problem:

Send details on projectors for () sound film; () silent film.

Send free 1940 list of () sound films; () 16 mm. silent films.

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School

Address

City State ASB 5-40

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BOARDS OF EDUCATION

♦ Akron, Ohio. The school board has voted to place 82 married teachers on a half-time basis, to dismiss 28 incompetent teachers, and to retire 15 older teachers, as an economy measure. The program, to become effective next September, will include a change in the retirement age from 70 to 67.

♦ Flint, Mich. The school board has voted to close the school year two weeks earlier, cutting the term from 10 to 9½ months. The board is facing a deficit of \$40,000.

♦ Brush College, Ill. A ten-year fight for an enlarged board of education has been ended with the election of a new president and six new board members. The new seven-man board will be headed by Hershel Wright. The new members are Alonzo F. Lewis, Emery McBride, Mrs. Grace M. Martin, Jesse Fisher, Mrs. Beulah Breuer, and Joseph D. Josseland.

♦ Quincy, Mass. Junior-high-school promotions will this year be stripped of all frills. Supt. James N. Muir, supported by the school board and principals, has pointed out that the custom of evening gowns, silver slippers, class pins, and other frills for teen-age boys and girls is ridiculous. He condemns them as items of unwarranted expense to parents.

♦ Toledo, Ohio. The school board has approved a resolution, submitted by Ralph Millard, requiring that the board members act as a body and only when in session. Individual board members, under the resolution, may not interfere with the administration or operation of the schools, or with employees in the performance of their duties.

♦ Dawsonville, Ga. The Dawson County school board has voted to operate the small schools for seven months, the consolidated junior high school for eight months, and the senior high school for nine months. The state will pay for full six months of school, and the county board is giving the seventh month. The eighth and ninth months are being given the junior and senior high schools by the county board and state funds.

♦ Arcola, Ill. The boards of education of the Arcola Grade Schools, Dist. No. 75, and of Arcola Township High School, Dist. No. 151, have voted to centralize the administration of the schools and place them under one superintendent. The action was taken as a matter of economy and for the betterment of the administrative procedure.

♦ Detroit, Mich. The school board has refused to approve the placing of mite boxes in the schools for the "Children's Crusade."

♦ Marquette, Mich. The school board has approved a recommendation of the superintendent for the employment of a qualified person on part time, to give intelligence and aptitude tests.

♦ Bay City, Mich. The board of education has restored the 40-week school year for 1940-41, which places the schools back on their normal operating basis. The action is tentative, dependent upon the funds available for operating. The board has also approved salary increases for teachers, totaling \$17,000 for the year.

♦ Milwaukee, Wis. The board of school directors has ordered the closing of two old elementary schools, with a total enrollment of 660 children. Redistricting the areas will permit the enlargement of classes in neighboring buildings to normal size and will result in an annual economy of \$32,000.

♦ Abilene, Kans. The school board has announced that Dr. J. W. Givente, of the Bureau of School Service, of the University of Kansas, has begun a survey of the school system to include buildings and equipment. The findings of the survey will be used by the board in planning for the building needs of the schools for the next twenty years. Supt. W. C. Robinson has completed a study of educational conditions, covering enrollment, rate of taxation, and assessed valuation for the past twenty years, which will furnish a basis for the new program.

♦ Middletown, R. I. The school board has undertaken a study of tuition and transportation time and costs, to determine the best plan for next year. The board is considering new building plans and is working with its building committee in gathering information to be used as a guide in planning.



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SAFE because floors dry almost instantly after scrubbing. In fact, you can light a match on any hard-surfaced floor immediately after scrubbing and drying with the HILD Vacuum Pick-up. No slick film—no slip hazard.

EFFICIENT. Scrub... then pick up dirty scrub water instantly and completely. No rinsing, no mopping. No water left in cracks and crevices or under baseboards to cause rotting or warping. No "half-washed streaks" or squeegee marks.

ECONOMICAL.

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The HILD Scrubbing Machine does many other floor refinishing and maintenance jobs. Use the HILD Vacuum Machine for scores of dust-control jobs: dust-free floor sweeping, cleaning walls, ledges, desks inside and out, ventilating ducts, venetian blinds, eraser rails, unit heaters, etc.

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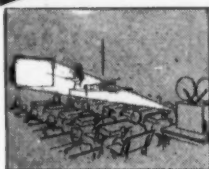
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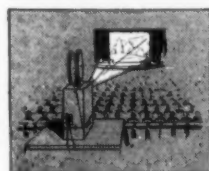
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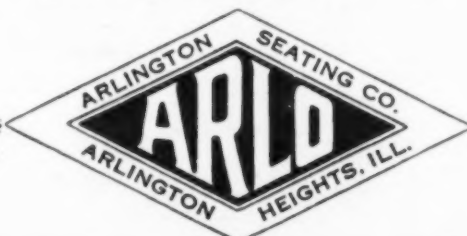


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With a background of more than thirty years' experience in the manufacturing of quality school furniture, we are in a position to furnish promptly the particular type of modern school seating best suited to your requirements.

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Complete
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THE 4★ ★ ★ ★ VALLEN 150 CURTAIN TRACK and
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Write for New Specification Sheet **TODAY**



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DRAPER Sight-Saving SHADES

MADE SPECIALLY FOR SCHOOL USE

Ordinary All-Purpose Shades Can Not Do
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Shut out glare • Admit proper amount of sunlight for classroom study and activities • Spread light to every part of classroom • Protect pupils' eyes... save sight • Operate easily, quietly... without flapping, jerks, squeaks • Withstand school abuse • Provide overhead ventilation and top-of-window light • Remain locked in exact position wanted • Beautify classrooms • Launder, dry-clean, brush off • Adjustable... top and bottom... covering only area of window where excessive light comes in • Demount instantly for cleaning and window washing • Reduce shade maintenance costs • Save money now and in the long run.



Draper Sight-Saving School Shades do all these jobs efficiently... and more besides.

Ask about Draper Darkening Shades for Visual Education Rooms.

LUTHER O. DRAPER SHADE COMPANY

Dept. AA-6

Spiceland, Indiana

After The Meeting

An Old One Repeated

A member of the school board, who held that the children were not getting any real education, made a visit of inspection. He surveyed the class and shook his head. He felt he could almost see their ignorance.

"You," he said to a red-haired boy, "tell me how many days there are in a year."

"Seven," said the boy promptly.

The visitor frowned. "I said a year," he insisted.

"Now think again. How many days in a year?"

The boy reflected in puzzlement. "Well, there's Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, and Saturday," he said. "And if there's any others, I'd like to know what you call them." — Exchange.

Whosit?

I like an exam.
I think they're fun.
I never cram.
And I won't flunk one.
I'm the teacher.

— Classmate.

The Solution

"Sad about the disappearance of Prof. Hill," said James, polishing his brassie. "He was a profound thinker."

"Yes—always thinking, no matter where he was," replied another clubman. "Fancy, the last time I saw him we were bathing, and he suddenly called out, 'I'm thinking! I'm thinking!'"

"You idiot!" roared James. "The professor lisped." — Kansas City Star.

Saved

The bright young pupil looked long and thoughtfully at the second examination question, which read: "State the number of tons of coal shipped out of the United States in any given year." Then his brow cleared and he wrote:

"1492—none." — Utah Humbug.

Pop's Experience

Small boy: "What is college bred, pop?"

Pop [with son in college]: "They make college bread, my boy, from the flour of youth and the dough of old age." — Royal Arcanum Bulletin.



Low Mark in Natural History

"Riches," read the teacher, "take unto themselves wings and fly away. What kind of riches does the writer mean?"

Blank looks met his gaze.

"Surely someone can answer a question like that. You, Brown, what kind of riches did the writer mean?"

Brown hesitated a moment, and then plunged, "Ostriches, Miss." — Chicago News.

To the Point

The class was set the task of writing an essay entitled "Our Dog."

Tommy was the first to finish. His effort read: "Our dog. We haven't got one." — Furnica.

School Buyers' News

Offer New Bookkeeping Machine

The Burroughs Adding Machine Company, Detroit, Mich., is offering a new, low-cost bookkeeping machine, which permits the operator to describe a transaction on the ledger and state in one operation. A series of word keys permits of complete descriptions for the distribution of accounts, both on the debit and credit sides. Balances are printed from a single key depression, and ciphers, dates, punctuation, carriage tabulations, and alignment of dollars and cents are automatic.

The machine is particularly usable for internal school accounting. Circulars are available.

Announce W-59 Remote Bulb Thermometer

The Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., has announced a new remote bulb thermometer, designed for air-conditioning apparatus.



The thermometer, designated as W-59, permits the measurement of temperatures at any desired point within a heating, ventilating, or air-conditioning duct.

Another model of the same thermometer, designated as W-59B, may be inserted in water pipes or tanks.

Complete information is available from the firm at 2950 Fourth Ave., Minneapolis, Minn.

New Reality Political-Physical Map of South America

The Weber Costello Company, Chicago Heights, Ill., has announced a new political-physical map of South America, which is the second large map in a new series designated the "Reality" maps.

The new Reality Series is being prepared under the authorship of Miss Edith Putnam Parker, and will ultimately include eight major maps. Among the new features are unusual legibility, improved color treatment based on international standards, cultural and man-made features designated with red lettering, absence of wasteful borders, emphasis of zone lines, and consistent depiction of very important geographic facts.

Complete information is available upon request.

Bell-Howell Conversion Booklets

School officials and teachers will be interested in the new "conversion" booklets, just issued by Bell & Howell Company, 1801 Larchmont Ave., Chicago, Ill., telling how to bring the school cameras or projectors up to date.

The projector booklet discusses increased illumination by conversion to use modern high-wattage lamps, and describes the Magnilite condenser, pilot light, centralized switchbox, and long-focus lenses. The camera booklet describes the handcrank for making lap dissolves, and discusses refinishing, view finders, speed ranges, and winding key.

Complete information will be furnished upon request.

New Celotex Interior Finishes

The Celotex Corporation, 919 North Michigan Ave., Chicago, Ill., has announced new insulating interior finishes, in colors which provide excellent light reflection and decorative treatments for classrooms, halls, auditoriums, and offices.

A wide variety of colors and textures is offered, with the most recent additions in light green and buff and a new ripple blend finish in four harmonious light copper and mahogany tones. Other colors are ivory, natural sanded, natural rippled sanded, light brown rippled sanded surfaces.

New Vulcan Expando Units

The Standard Gas Equipment Corporation, 18 East 41st St., New York City, has announced



Typical Units of the Vulcan School Cafeteria Heavy Duty Range

a new line of Vulcan heavy-duty gas ranges, which have been entirely redesigned and which contain a number of improvements.

The Vulcan "Expando" units have convenient storage compartments, new even-heat tops, new open and fry tops. Each one of the range tops can be expanded to 46 $\frac{3}{4}$ or 62 $\frac{3}{4}$ in. by adding one or two of the "Expando" units, and the units themselves can be connected in a battery. The heating unit can be taken out by removing four screws.

Rite-Rite Brochure

The Rite-Rite Mfg. Company, 1501 West Polk St., Chicago, Ill., has prepared an interesting brochure of detailed information on ways in which Rite-Rite mechanical pencils are econom-



Rite-Rite School Pencil

ically replacing older writing tools in the business world. The brochure points out that the new-type pencil is from four to five times as economical as a product used for the same purpose costing only 1 cent per unit.

Copies of the brochure are available upon requests from school authorities.

Spencer Teaching Aids

The Spencer Lens Company, Buffalo, N. Y., has prepared an impressive circular illustrating and describing the principal types of Spencer laboratory microscopes, projection lanterns, and other laboratory teaching instruments and accessories.

Notable in the Spencer line is a new Ophthalmograph, which is a completely portable camera for studying eye movements while the student is reading. A second instrument to aid in the analysis of eye defects is the Metronoscope that enables teachers to study and overcome difficulties in the left-to-right control of the eyes.

The new circular will be sent to school authorities upon request.

Announce New Series M-8000 Boilers

The Kewanee Boiler Corporation, Kewanee, Ill., has just announced its new M-8000 Scotch Marine type boilers for low-pressure steam service where boiler-room ceilings are low and foundation excavation would not be desirable. The boilers are of the welded type, for 15 pounds working pressure, mechanical firing, with a capacity of 2,680 to 42,500 square feet of steam radiation. Full information may be had in Catalog 99-2a which is available for school authorities.

Mr. P. A. Snyder Promoted

The Yale & Towne Mfg. Company, Stamford, Conn., has announced the appointment of Mr. P. A. Snyder as sales manager of specialties sales for the Stamford Division.

Mr. Snyder, who has been associated with Yale & Towne for nineteen years, started in the Chicago office. In 1923 he was appointed door-closer specialist, and from this position was promoted to trade salesman in 1924. Prior to his present promotion, he held the position of Assistant Manager of Specialties Sales, an office to which he was appointed in January, 1939.

SCHOOL BUYERS' NEWS

New Spencer Stereoscopic Microscopes

The Spencer Lens Company, of Buffalo, N. Y., has announced a new series of stereoscopic microscopes embodying notable optical and mechanical improvements.

The manufacturers state that the new microscopes offer a vivid stereoscopic image that is easy on the eyes, has a great depth of focus and a large object field, and a high degree of resolution of fine detail giving critical sharpness to the image.

The mechanical improvements are planned to facilitate focusing on large or small specimens and for quick changes in magnification. These instruments are heavy, rigid, equipped with a dust-proof holder, and a base with mirror for work requiring transmitted light.

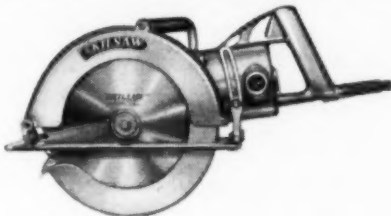
These instruments are offered in four different mechanical arrangements, covering a wide range of uses, and the magnifications range from 6.3x to 144x. Seven different powers in paired objectives and four different powers in paired eyepieces provide a total of 28 magnifications.

Complete information will be furnished on request to any school official.

Skilsaw Electric Handsaw

An improved new model of the well-known line of Skilsaw portable electric saws, incorporating a number of new features, has just been announced by Skilsaw, Inc., 4751 Winnemac Ave., Chicago, Ill.

The new Skilsaw Model 127 has a 12-in. blade, cuts to a depth of 4 $\frac{3}{4}$ in., and is ideal for timber cutting and for cutting many types of building tile and continuous cutting of copper



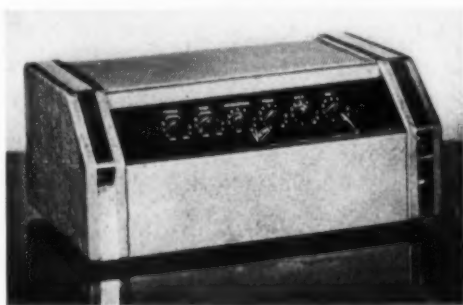
sheets. It will rip and crosscut timbers up to 4 in. full, and bevel-cut lumber 3 5/16 in. thick at 45 deg. The blade has a free speed of 2,400 r.p.m., and is protected by an automatic telescoping guard which rotates on ball bearings. The frame is of die-cast aluminum alloy and the shafts are mounted on ball bearings.

Complete information is available upon request.

New Victor Amplifier

The Victor Animatograph Corporation, Davenport, Iowa, has announced a new unit in sound equipment, to be used in connection with their 16-mm. motion-picture projector, as well as in the reproduction of sound recordings, public-address systems, and radio transmission.

The new amplifiers, units "O" and "R," are declared to contain a new clarity of rich tones



The New Victor Amplifier

and clear highs, as well as perfect reproduction of speech and music from sound track, records, or "mike."

The new amplifier has been redesigned and any choice of tone is easily made possible by the Victor system of controls. Complete information is available upon request.

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Detroit UniStoker Catalog

The Detroit Stoker Company, General Motors Building, Detroit, Mich., has issued a 24-page catalog, describing the new UniStokers and their use in educational institutions.

The Detroit UniStoker is described as being of the single-retort, plunger-fed, unit type. Each stoker, with its individual full-housed blower, mounted at the stoker front, is an independent, self-contained unit. It is built in various grate-area sizes and coal-burning capacities for all types of boilers. It is stated that the stoker is flexible in operation, responds quickly to changes in steam requirements, and is capable of burning all grades of coking or noncoking coals. Boilers can be taken from a banked condition to overrating in a few minutes, without objectionable smoke.

Complete information is available upon request.

OFFER SHORT COURSE IN BELOIT, WISCONSIN

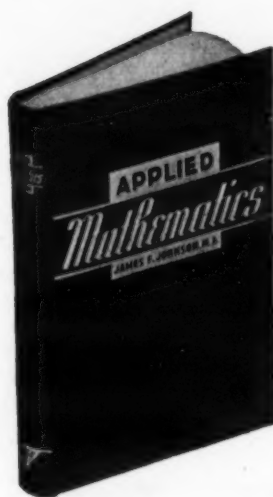
A short course for city school custodians will be offered in Beloit, Wis., beginning June 17 and ending June 21. Mr. George H. Bush, of Purdue University, Lafayette, Ind., will direct the course.

PERSONAL NEWS

- MR. WESLEY S. WATSON, of Waterville, Ohio, has been elected superintendent of the Lykens Consolidated Rural School near Bucyrus, Ohio.
- SUPT. RUSSELL BAKER, of Winthrop, Iowa, has been re-elected for the next year.
- SUPT. PAUL J. SIMONS, of Peterson, Iowa, has been re-elected for a two-year term.
- SUPT. H. D. JENSEN, of Lakefield, Minn., has been re-elected for another year.
- SUPT. LESTER SHERRILL, of Hollis, Okla., has been re-elected for the next year.
- J. C. HAMMOND, of Westville, Okla., has been elected superintendent of schools at Wagoner. He succeeds R. E. Staffebach.
- SUPT. E. L. DICKINSON, of Lone Tree, Iowa, has been re-elected for another year.
- SUPT. F. A. CADY, of Corning, Ohio, has been re-elected for the next year.
- SUPT. ED. WIXON, of Bradgate, Iowa, has been re-elected for another year.
- SUPT. G. R. PATTON, of Waynesfield, Ohio, has been re-elected for a sixth term.
- SUPT. N. C. AUNGST, of Dola, Ohio, has been re-elected for another year.
- A. C. BELL, of Grover Hill, Ind., has been elected superintendent of schools in Paulding County.
- WILLIAM WHITE, of Holton, Mich., has been elected superintendent of schools at Memphis, Mich.

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